Hot Bituminous Pavement QC&QA Projects Constructed in 1996 Under QPM 2 Specifications

Bud A. Brakey Colorado Department of Transportation Construction and Materials Branch 4201 East Arkansas Avenue Denver, Colorado 80222

Fifth Annual Report May, 1997

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This report presents Tables and Figures which summarize the HBP Quality Level Analysis (QLA) for projects completed in 1996, the second season using the latest significant revision to the specifications. The Quality Level (QL) for the elements (sieve analysis, asphalt content, and pavement density) and the item composites are summarized. While QL determines Pay Factor (PF), it is also used to rank contractors' performance. The item QL improved 1.3 percentage points in 1996 over 1995. But the incentive/disincentive payments were not sufficient to cause some of the contractors to improve their process control. Both, the better and poorer performing contractors show up with similar rankings from year to year. The QLA specifications essentially are serving satisfactorily.

Implementation:

The PF formulas were modified for the 1997 season so as to make the PF continuous in relation to the QL, rather than in steps as has been the procedure. It is suggested the methods of applying weight factors to the element QL's for PF calculations be reviewed for possible changes. Some other changes in the specification and computer software are needed.

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CDOT REPORT FOR THE HBP QC/QA PROJECTS CONSTRUCTED IN 1996 UNDER QPM 2 SPECIFICATIONS

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INTRODUCTION AND COMMENTS

CDOT began QC&QA construction for hot bituminous pavement (HBP) in 1992 with the implementation of a three-year pilot program which was essentially completed in 1994 (there were a number of projects held over and completed in 1995). The Pilot project computer software was designated QPM 1 and that designation is used herein for projects built under the Pilot specifications.

In 1994 a revised and updated specification was written, designated as QPM 2⁽²⁾ and used on a limited number of projects completed in 1995 and essentially all HBP projects completed in 1996. Four previous reports have been made, for 1992 through 1995, ^(3, 4, 5 & 6) which are available from the CDOT library, or through the Pavement Unit located in the Central Laboratory. The report on 1995 construction contained summaries for both QPM 1 & 2.

The general format and presentation of data in this Fifth Annual report is similar to that used in the previous reports. Information on the background, development, philosophy and rationale involved with QC&QA specifications can be found in the previous reports and is not being repeated here. The total tons placed each year under each specification and the summarized data can be found in Tables 4 and 5. Also, relationships of yearly summaries to the 1991 historical base are depicted in the tables and figures 5 - 8

DISCUSSION OF THE DATA

Description of Tables and Figures.

Table 1, comprising 7 pages is a listing of each complete process (referred to in the column heading as Mix Design) summary. Each element, asphalt content, density and gradation is listed, along with a composite calculation (Totals & Weighed Means) for the applicable columns. Tons, test "n" and the incentive or disincentive payments (I/DP) are totaled. Quality Level (QL) and pay factor (PF) are the average of the element values weighted by their "W" factors (see previous reports and the QPM 2 specifications). The projects summaries are listed numerically by subaccount (SA) and mix design numbers. This table is summarized data for information only.

The three elements and mix design item summaries (composite) have been grouped together in Table 2. The data is listed by SA. Each element is totaled and averaged (weighted by tons). The 1995 QPM 2 summaries are presented immediately below the 1996 data and the differences follow. The composite is the final grouping and presents summaries for all projects reported for the 1996 season. The information in Table 2, except for the summary data at the end of each group, is the same as in Table 1, except it has been sorted by element and composite in order to do the analysis.

The summary values from Table 2 have been transferred to Tables 3 and 4 as 1996 QPM 2 data. Table 3 is the consolidated data for each project listed by SA. If there was only one process, the project data is the same. If there were two or more processes, the bid price, QL and PF are averages weighted by tons. The tons and dollars I/DP are totals. All additional tables in the Table 3 group are presentations of the same information, sorted and sub-grouped differently to aid in review and understanding.

Table 4 is the summarized element and composite data for 1991 historical and the QC&QA data for 1992 through 1996. Included are the overall summaries for all QPM 1 and all QPM 2 projects. The tons and number of tests for group are also shown. Table 5 is taken from table 4 and presented in a different mode. It groups the elements and composites together. Also, the data has been "normalized" by comparing each element for each year with the historical data, shown as a percentage of 1991. The SD column is the

inverse percentage in order to portray each of the four columns as over 100% when there has been improvement (i.e., the smaller the SD, the better the performance would be and the higher the inverse percentage). For the other columns, direct percentages are used, and over 100% indicates improvement over 1991.

Figures 1 and 2 are plotted from Table 3D and show contractors' performance by QL and PF in relation to the percentage of the overall 1996 production by each. Figures 3 - 6 are plotted from the data in Table 5. Figures 7 - 12 are frequency histograms of 1995 and 1996 element test values. For asphalt content and the No. 8 sieve (in most cases the controlling sieve for the gradation element), the field test values for each process were adjusted to a common target value equal (average for the year). The density test target remains the same for all processes, consequently no adjustment was necessary.

Significance of Data and Comments

Table 1 is merely a listing and requires no comment. The significance of the element and composite summaries shown in Table 2 is discussed below with Table 4 and 5 discussion. In Table 3A the projects are sorted by QL. The information is grouped by CDOT Region in 3B. The QL rankings probably have more to do with which contractors did the work, and various intangible factors, than it has to do with the CDOT region personnel. In Table 3C projects have been sorted by contractor, with each group ordered by QL. In Table 3D each contractor's group has been totaled and averaged, then sorted by QL; where the work was performed is not obvious, but can readily be determined by glancing at 3C.

The ranking of the contractors by QL along with tonnage represented is of interest to many. A review of the 1993-1995 reports revealed that most of the same contractors keep showing up with similar QL rankings. That is, the better performers repeat year after year and likewise, so do the poor performers. There are occasional extenuating circumstances, such as experimental projects or other factors, that shift the rankings to some degree. Apparently, the incentives, or disincentives are not great enough to persuade some contractors to perform at a higher level. But other factors may be involved, such as location of the project in relation to the home base of potential bidders. Competition will not always guarantee the best performing, most efficient contractors will be the lowest bidders.

From Table 4, the QLs of all three elements, and the composite, have improved in 1996 over 1995 QPM 1 and 2. The 1996 composite QL is 1.3 percentage points higher than 1995 QPM 2 and 6.7 percent above 1995 QPM 1. This is a significant improvement, but a few projects with low QLs can easily have a negative effect on the yearly average. It is suggested that the element weighting (W) factors be changed to have a greater disincentive effect when any process element has a PF below 1.0. For PFs of above 1.0, there would be no change. Some preliminary study has been done with various factors applied to 1996 data. Such a change appears feasible and not too difficult to implement. It would have minimal impact on contractors performing at higher quality levels.

Figures 7 and 8, and 11 and 12 show there has been some improvement in the distribution of the field test results for asphalt content and the No 8 sieve respectively, in 1996 over 1995. Figures 9 and 10 for asphalt density show the distribution for 1996 is not as good as in 1995. There is a lack of test values just below the lower tolerance limit of 92 and a larger percentage of values just inside the specifications than is normal. This tendency has been evident to greater or lesser degrees from the beginning of the QC&QA program. All persons involved with random sampling procedures for CDOT should be thoroughly trained in proper procedures.

Other than the above comments, the HBP QC&QA program appears to be proceeding satisfactorily. Some changes in the computer software are currently in process that should reduce the QPM data manipulation problems evident in the past.

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TABLES AND FIGURES

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AND MIX	DES	IGN	FUK 1	336 (<u>CNO</u>	IRUC	<i>,</i> U	<u> 195</u>	<u>:A5C</u>	<u>ט אנ</u>	<u> SING</u>	QPM 1	30)	
PROJECT	REG/	SUBAC		ELE-		TONS	TEST	PRCE		1-	PAY	Incent/		
LOCATION	UNIT	NUMBE	ne.	PORTO DE COMO	\$/TON	1000	"R"	SD	-TC	_		Disinc\$	1	HBP
			/PRC88					Grade	illon is #6	Grade	tion is CONT	ROLLING Sieve	Code	Grad
00.0440.000		40204	04000 4	<u>.</u>										
CC C110-002	6	10304 10304	64268-1 64268-1	a AC%	\$25.00	12.4	12	0.18	0.02	98.7	1.050	\$4,658	A1 A1	C
Lena Guich Lena Guich	6	10304	64268-1	Dn%	\$25.00	12.4	25	0.77	-0.40	98.5	1.050	\$7,763	A1	c
Lena Guich	6	10304	64268-1	Grad	\$25.00	12.4	6	3.50	0.30	69.4	0.944	(\$3,460)	A1	č
TOTALS & WTED MEANS	_	10304	64268-1	ITEM	\$25.00	12.4	NA	NA	NA	92.7	1.029	\$8,960	A1	c
CC 0931-018	******	10306	64268-1	8				**********		**********			A1	С
SH 93 & Golden Gate C	6	10306	64268-1	AC%	\$27.00	10.0	10	0.13	0.16	86.3	1.016	\$1,303	A1	С
SH 93 & Golden Gate C	6	10306	64268-1	Dn%	\$27.00	10.0	20	0.73	-0.88	94.3	1.043	\$5,839	A1	С
SH 93 & Golden Gate C	6	10306	64268-1	Grad	\$27.00	10.0	5	0.89	2.40	100.0	1.030	\$1,620	A1	С
TOTALS & WIED MEANS	(0.000000000000000000000000000000000000	10306	64268-1	ITEM	\$27.00	10.0	NA	NA	NA	93.0	1.032	\$8,762	A1	C
HB 042-041	_	10395	90860-1	a			•	- 4-			4.004	0 (000	C4	CX
West of Granby W	3	10395	90860-1	AC%	\$27.31	24.0	24 47	0.17	-0.07	90.4	1.021	\$4,035 67.305	C4	CX
West of Granby W	3 3	10395 10395	90860-1 90860-1	Dn%	\$27.31 \$27.31	24.0 24.0	12	0.98 0.94	-0.57 1.20	92.5 97.4	1.022 1.050	\$7,295 \$8.654	C4 C4	CX
West of Granby W TOTALS & WITED MEANS	3	10395	90860-1	Grad ITEM	\$27.31 \$27.31	24.0	NA	NA	NA	92.9	1.027	\$6,554 \$17,884	C4	CX
		10030	30000	HEM	927.31	24.0			130	32.3	1.021	311,004		
C 2571-002		10595	81701A	a									C2	C
SH 257, US 34-Poudre	4	10595	81701A	AC%	\$27.60	9.4	10	0.17	0.14	81.1	0.993	(\$585)	C2	Č
SH 257, US 34-Poudre	4	10595	81701A	Dn%	\$27.60	9.4	19	0.66	-1.04	92.9	1.035	\$4,608	C2	С
SH 257, US 34-Poudre	4	10595	81701A	Grad	\$27.60	9.4	5	2.30	-2.20	85.2	1.027	\$1,393	C2	С
TOTALS & WITED MEANS		10595	81701A	ITEM	\$27.60	9.4	NA	NA	NA	88.5	1.021	\$5,416	C2	C
NH 0503-045		10652	87163A-1	8									H1	C
Royal Gorge - East	2	10652	87163A-1	AC%	\$24.89	35.8	36	0.17	0.13	83.4	0.976	(\$6,494)	H1	C
Royal Gorge - East	2	10652	87163A-1	Dn%	\$24.89	35.8	72	0.83	-0.27	98.0	1.060	\$26,674	H1	C
Royal Gorge - East	2	10652	87163A-1	Grad	\$24.89	35.8	18	1.62	1.60	89.2	1.021	\$3,718	H1	C
TOTALS & WIED MEANS		10652	87163A-1	ITEM	\$24.89	35.8	NA	NA	NA	91.9	1.027	\$23,898	H1	С
C 0062-009		10679	64248A-1	8									B1	C
6TH & Union	6	10679	64248A-1	AC%	\$29.53	4.9	5	0.12	-0.22	96.3	1,030	\$1,313	B1	c
5TH & Union	6	10679	64248A-1	Dn%	\$29.53	4.9	10	0.85	0.14	99.5	1.040	\$2,919	B1	Ċ
6TH & Union	6	10679	64248A-1	Grad	\$29.53	4.9	3	1.73	-3.00	75.6	1.020	\$594	B1	C
TOTALS & WITED MEANS		10679	64248A-1	ITEM	\$29.53	4.9	NA	NA	NA	93.7	1.033	\$4,826	B1	С
C 0062-009		10679	64254C-1	a									B1	С
6TH & Union	6	10679	64254C-1	AC%	\$29.53	22.6	23	0.15	-0.02	99.5	1.050	\$10,032	B1	C
6TH & Union	6		64254C-1	Dn%	\$29.53	22.6	46	1.18	-0.67	86.1	0.975	(\$8,403)	B1	C
STH & Union	6	10679	64254C-1	Grad	\$29.53	22.6	12	1.44	-1.90	99.2	0.970	(\$4,037)	B1	С
TOTALS & WITED MEANS		10679	64254C-1	ITEM	\$29.53	22.6	NA	NA.	NA	92.7	0.996	(\$2,408)	B1	C
W 0353 370		40760	BE 442 4			A.A							V4	
IM 0252-278 Greenland - North	1	10768 10768	65442-1	a AC%	\$32.00	16,6	17	0.22	0.02	82.8	0.987	(\$2,078)	K1 K1	C
Greenland - North	1		65442-1	Dn%	\$32.00	16.6	34	1.09	-0.81	85.8	0.991	(\$2,070)	K1	C
Greenland - North	1	10768		Grad	\$32.00	16.6	9	3.06	0.10	92.0	1.035	\$3,726	K1	C
TOTALS & WITED MEANS	•	10768		ITEM	\$32.00	16.6	NA	NA	NA	86.1	0.999	(\$672)	K1	c
					402.00		•••				0.000	(00.2)		•
Freenland - North	1	10768	65442A-1	AC%	\$33.00	7.2	8	0.22	-0.21	78.9	0.981	(\$1,332)	K1	С
Greenland - North	1		65442A-1	Dn%	\$33.00	7.2	NA	NA	NA	NA	1.000	\$0	K1	С
Greenland - North	:	10768	65442A-1	Grad	\$33.00	7.2	4	1.83	1.20	84.0	1.030	\$1,431	K1	С
TOTALS & WITED MEANS		10768	65442A-1	ITEM	\$33.00	7.2	NA	NA	NA	81.0	1.000	\$99	K1	С
reenland - North	1	10768	65442B-1	AC%	\$32.00	13.1	13	0.17	0.12	85.3	1.001	\$120	K1	C
reenland - North		-	65442B-1	Dn%	\$32.00	13.1	NA	NA	NA	NA	1.000	\$0	K1	С
Greenland - North			65442B-1	Grad	\$32.00	13.1	7	3.24	1.90	83.0	1.012	\$982	K1	C
OTALS & WITED MEANS		10768	65442B-1	ITEM	\$32.00	13.1	NA	NA	NA	84.4	1.003	\$1,101	K1	С
ennales al Stade		10766	2222 4		6 22.50	42.0	4.4	0.40	0.04	0n A	4 000	60 077	V4	_
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OTALS & WITED MEANS		10768			\$33.00 \$33.00		NA	NA		87.3	1.010	\$1,293 \$4,270	K1	C
			- Judy- 1	~ .			7			JU		- 1961 V		_

TABLE 1
HOT BITUMINOUS PAVEMENT QC/QA DETAILS & SUMMARY BY PROJECT
AND MIX DESIGN FOR 1996 CONSTRUCTION SEASON USING QPM 1(95)

AND MIX	DES	JIGIT	FUR 1	130 (SUN2	IKU	<u>, 110</u>	N SE	NOC	U PI	<u> </u>	QPM 1	[95]	
PROJECT	REG/	SURAC	MIX	ELE-	BID	TONS	TEST	PRCE	MEAN	QUAI	PAY	Incent/	T	
LOCATION	UNIT	NUMBE	DESIGN	MENT	\$/TON	1000	"""	SD	-TC	TEAL	FACT	Disinc\$	Contr	HBP
i,			/PRCSS					Grade	tion is 198	Grade	tion is CONT	ROLLING Sieve	Code	Grad
Greenland - North	1	10768	83239A-1	AC%	\$34.00	5.5	6	0.30	0.14	63.6	0.907	(\$5,225)	K1	С
Greenland - North	1	10768	83239A-1	Dn%	\$34.00	5.5	NA	NA	NA	NA	1.000	\$0	K1	С
Greenland - North	1	10768	83239A-1	Grad	\$34.00	5.5	3	1.15	-3.70	83.3	1.025	\$938	K1	С
TOTALS & WITED MEANS	000000000000000000000000000000000000000	10768	83239A-1	ITEM	\$34.00	5.5	NA	NA	NA	71.5	0.977	(\$4,288)	K1	C
										·				
STA 03851-008	_	10769	88600-1										H1	C
SH385, 20 Mi S of 170 N	1	10769	88600-1	AC%	\$30.28	26.9	27	0.10	0.06	99.5	1.050	\$12,232	H1	С
SH385, 20 Mi S of 170 N	1	10769	88600-1	Dn%	\$30.28	26.9	54	0.71	-0.55	98.1	1.055	\$22,425	H1	С
SH385, 20 Mi S of 170 N	1	10769	88600-1	Grad	\$30.28	26.9	14	1.96	1.00	89.6	1.023	\$3,691	H1	C
TOTALS & WTED MEANS		10769	88600-1	ITEM	\$30.28	26.9	NA	NA	NA	96.8	1.047	\$38,347	H1	С
DD 2054 000		10790	00000 4										64	
BR 3851-009	1	10790	88600-1 88600-1	a AC%	\$38.00	3.0	3	0.02	0.01	100.0	1.025	\$848	G1 G1	C
10 M N Cheyenne Wells 10 M N Cheyenne Wells	1	10790	88600-1	Dn%	\$38.00	3.0	6	0.90	-0.90	89.5	1.035	\$1,967	G1	C
10 M N Cheyenne Wells	1	10790	88600-1	Grad	\$38.00	3.0	3	1.53	1.70	100.0	1.035	\$565	G1	c
TOTALS & WITED MEANS	-	10790	88600-1	ITEM	\$38.00	3.0	NA.	NA.	NA	94.8	1.030	\$3,381	G1	č
			00000							J 1.0				<u> </u>
STr 0853-029	-000-000-000-0	10857	81942a	8	ododeolo suseción		00000000000	**********				90007009309X04X03010	W2	С
So Rockport- Wyo St Line	4	10857	81942a	AC%	\$22.50	13.7	14	0.14	-0.04	97.4	1.050	\$4,620	W2	C
So Rockport-Wyo St Line	4	10857	81942a	Dn%	\$22.50	13.7	28	0.78	-1.10	87.6	1.003	\$443	W2	С
So Rockport- Wyo St Line	4	10857	81942a	Grad	\$22.50	13.7	7	1.13	-1.60	82.4	1.009	\$563	W2	С
TOTALS & WITED MEANS		10857	81942a	ITEM	\$22.50	13.7	NA	NA	NA	91.3	1.018	\$5,626	W2	С
So Rockport- Wyo St Line	4	10857	81942b	AC%	\$22.50	1.4	2	NA	NA	NA	1.000	\$0	W2	C
So Rockport- Wyo St Line	4	10857	81942b	Dn%	\$22.50	1.4	0	NA	NA	NA	1.000	\$0	W2	C
So Rockport- Wyo St Line	4	10857	81942b	Grad	\$22.50	1.4	1	NA	NA	NA	1.000	\$0	W2	С
TOTALS & WITED MEANS		10857	81942b	ITEM	\$22.50	1.4				NA	1.000	\$0	W2	С
So Rockport- Wyo St Line	4	10857	80699A	AC%	\$28.85	3.0	3	0.12	0.15	100.0	1.025	\$641	W2	С
So Rockport- Wyo St Line	4	10857	80699A	Dn%	\$28.85	3.0	6	0.54	-1.43	85.2	1.020	\$861	W2	С
So Rockport- Wyo St Line	4	10857	80699A	Grad	\$28.85	3.0	2	NA	NA	NA	1.000	\$0	W2	С
TOTALS & WITED MEANS		10857	80699A	ITEM	\$28.85	3.0	NA	NA	NA	90.8	1.018	\$1,502	W2	С
So Rockport- Wyo St Line	4		80699B	AC%	\$28.85	21.6	22	0.08	0.06	100.0	1.050	\$9,341	W2	С
So Rockport- Wyo St Line	4		80699B	Dn%	\$28.85	21.6	44	0.85	-0.74	93.3	1.028	\$8,653	W2	С
So Rockport- Wyo St Line	4		80699B	Grad	\$28.85	21.6	11	2.42	0.50	97.5	1.040	\$4,982	W2	C
TOTALS & WITED MEANS		10857	80699B	ITEM	\$28.85	21.6	NA	NA	NA	99.0	1.037	\$22,977	W2	С
Co Dealmont Man Stilling		40067	040400	A 00V	6 22 E0	20	_			NA	4.000	60	1400	_
So Rockport-Wyo St Line	4		81942C 81942C	AC%	\$23.50 \$23.50	2.0	2	NA	NA	NA	1.000	\$0 \$0	W2	C
So Rockport- Wyo St Line So Rockport- Wyo St Line	4		81942C	Dn% Grad	\$23.50	2.0 2.0	1	NA NA	NA NA	NA NA	1.000 1.000	\$0 \$0	W2 W2	C
TOTALS & WITED MEANS	7		81942C	ITEM	\$23.50	2.0	NA.	NA NA	NA.	NA	1.000	\$0 \$0	W2	C
TOTALS & TO TELS MEATES		10031	013420	III EM	\$23.50	2.0	IAM	INCA	NA	INA	1.000	\$O	VV2	C
So Rockport- Wyo St Line	4	10857	80699C	AC%	\$29.85	5.0	5	0.07	0.14	100.0	1.030	\$1,335	W2	С
So Rockport- Wyo St Line	4			Dn%	\$29.85	5.0		0.95	-0.08	98.5	1.040	\$1,355 \$2,968	W2	C
So Rockport- Wyo St Line	4			Grad	\$29.85	5.0	3	1.15	0.70	50.0	0.889	(\$3,294)	W2	c
TOTALS & WITED MEANS					\$29.85	5.0	NA .	NA	NA	80.0	1.007	\$1,009	W2	C
IOIALO E WILD MEANO		10007	500550		925.00					00.0	1,007	W1,000		
STR 1192-006	4	10858	81470	a		***********	000000000000			000000000	***********		B1	C
Martin St (Longmont)- i 2					\$24,90	0.9	1	NA	NA	NA	1.000	\$0	B1	C
Martin St (Longmont)- 12					\$24.90	0.9	2	NA	NA	NA	1.000	\$0	B1	C
Martin St (Longmont)- I 2					\$24.90	0.9	1	NA	>2V	NA	0.500	(\$2,219)	B1	c
TOTALS & WITED MEANS					\$24.90	0.9	NA .	NA	NA		0.900	(\$2,219)	B1	c
								·- ·			J	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		-
Wartin St (Longmont)- I 2	4	10858	74544	AC%	\$24.90	10.9	10	0.20	0.04	86.4	1.017	\$1,348	B1	С
Martin St (Longmont)- I 2						10.9				84.4	0.982	(\$2,405)	B1	Č
Wartin St (Longmont)- 2					\$24.90	10.9				66.1	0.939	(\$3,295)	B1	C
TOTALS & WITED MEANS		10858					NA	NA			0.984	(\$4,353)	B1	С
												· · · ·		

TABLE 1
HOT BITUMINOUS PAVEMENT QC/QA DETAILS & SUMMARY BY PROJECT
AND MIX DESIGN FOR 1996 CONSTRUCTION SEASON USING QPM 1(95)

		,	TUK 1	ELE-			_		_	_	_		33)	
	•	SUBAC	DESIGN		BID \$/TON		TEST	SD	MEAN -TC	1-	PAY FACT	Incent/ Disinc\$	Contr	HBF
DOGRITON		TACOLUL III	/PRCSS		10/102	12000			tion is 98	_		ROLLING Sieve	Code	Grad
Marian I. Commission of the Co			,		A STANDARD		-							
Martin St (Longmont)- I 2	4	10858	61496	AC%	\$24.90	19.0	19	0.21	0.04	85,2	0.987	(\$1,801)	B1	C
Martin St (Longmont)- I 2	4	10858	61496	Dn%	\$24.90	19.0	38	1.10	-0.29	92.7	1.023	\$5,488	B1	С
Martin St (Longmont)- 12	4	10858	61496	Grad	\$24.90	19.0	10	2.10	-0.40	92.3	1.039	\$3,720	B1	С
TOTALS & WITED MEANS		10858	61496	ITEM	\$24.90	19.0	NA	NA	NA	88.0	1.016	\$7,406	B1	С
Martin St (Longmont)-12	4	10858	101896	AC%	\$29.00	1.1	1	NA	NA	NA	1.000	\$0	B1	С
Martin St (Longmont)- 2	4	10858	101896	Dn%	\$29.00	1.1	2	NA	NA	NA	1.000	\$0	B1	Ċ
Martin St (Longmont)- 2	4	10858	101896	Grad	\$29.00	1.1	1	NA	NA	NA	0.968	(\$203)	B1	C
TOTALS & WITED MEANS		10858	101896	ITEM	\$29.00	1.1	NA	NA	NA		0.994	(\$203)	B1	C
Martin St (Longmont)- I 2	4	10858	89309	AC%	\$20.00	5.0	5	0.31	-0.04	64.4	0.929	(\$2,124)	B1	СХ
Martin St (Longmont)- 12	4	10858	89309	Dn%	\$20.00	5.0	1	NA	NA	NA	1.000	\$0	B1	CX
Martin St (Longmont)- 2	4	10858	89309	Grad	\$20.00	5.0	3	1.00	0.00	100.0		\$500	B1	CX
TOTALS & WITED MEANS	7	10858	89309	ITEM	\$20.00	5.0	NA.	NA	NA	78.6	0.984	(\$1,624)	B1	CX
		10000	09309	IICM	\$20.00	3.0	IVA	N/A	1424	70.0	0.504	(\$1,024)	ы	CA
Martin St (Longmont)-12	4	10858	89309A	AC%	\$20.00	1.2	1	NA	>2V	NA	0.750	(\$1,800)	B1	CX
Martin St (Longmont)- ! 2	4	10858	89309A	Dn%	\$20.00	1.2	0	NA	NA	NA	0.750	(\$3,000)	B1	CX
Martin St (Longmont)- 12	4	10658	89309A	Grad	\$20.00	1.2	0	NA	NA	NA	0.750	(\$1,200)	B1	CX
TOTALSI & WITED MEANS		10858	89309A	ITEM	\$20.00	1.2	NA	NA	NA	0.0	0.750	(\$6,000)	B1	CX
CR 200-022		10944	82457-1A				erman:	••••						
Mach Ptc-C Sps-Pueb	2	10944	82453-1	AC%	\$32.31	6.5	7	0.24	-0.13	74.0	0.970	(\$1,908)	R1	С
Mach Ptc-C Sps-Pueb	2	10944	82453-1	Dn%	\$32.31	6.5	13	0.56	-0.22	100.0	1.050	\$5,250	R1	Č
Mach Ptc-C Sps-Pueb	2	10944	82453-1	Grad	\$32.31	6.5	4	1.71	0.30	96.8	1.030	\$1,260	R1	C
OTALS & WITED MEANS	_	10944	82453-1	ITEM	\$32.31	6.5	NA	NA	NA	91.6	1.022	\$4,602	R1	c
OTTES & TT TES MESTIC		10044	02-100-1	***	502.01	0.0	1903	147	10/5	01.0	1.022	41,002	100	Ū
lach Ptc-C Sps-Pueb	2	10944	82454-1	AC%	\$32.31	6.6	7	0.19	0.02	91.8	1.035	\$2,240	R1	С
fach Ptc-C Sps-Pueb	2	10944	82454-1	Dn%	\$32.31	6.6	14	0.74	-0.59	97.9	1.050	\$ 5,334	R1	С
Mach Ptc-C Sps-Pueb	2	10944	82454-1	Grad	\$32.31	6.6	4	0.50	-0.20	100.0	1.030	\$1,280	R1	С
OTALS & WITED MEANS		10944	82454-1	ITEM	\$32.31	6.6	NA	NA	NA	96.5	1.042	\$8,855	R1	С
Mach Ptc-C Sps-Pueb	2	10944	82455-1	AC%	\$28.38	22.3	23	0.14	0.02	97.4	1.050	\$9,474	R1	С
lach Ptc-C Sps-Pueb	2	10944	82455-1	Dn%	\$28.38	22.3	46	0.77	-0.50	97.5	1.055	\$17,368	R1	C
lach Ptc-C Sps-Pueb	2	10944	82455-1	Grad	\$28.38	22.3	12	1.90	1.20	98.4	1.050	\$6,316	R1	С
OTALS & WITED MEANS		10944	82455-1	ITEM	\$28.38	22.3	NA	NA	NA	97.7	1.053	\$33,157	R1	С
lach Ptc-C Sps-Pueb	2	10944	82455-1A	AC%	\$28.38	0.7	1	NA	>2xV	NA	0.750	(\$1,469)	R1	С
lach Ptc-C Sps-Pueb	2	10944	82455-1A	Dn%	\$28.38	0.7	NA	NA	NA NA	NA	0.750	(\$1,409) (\$2,448)	R1	C
lach Ptc-C Sps-Pueb	2	10944	82455-1A	Grad	\$28.38	0.7	NA	NA	NA	NA NA	0.750	(\$979)	R1	c
OTALS & WITED MEANS	4		82455-1A	ITEM	\$28.38	0.7	NA NA	NA NA	NA	0.0	0.750	(\$4,896)	R1	C
OIALS & WIED MEANS		10344	02433-IA	IIIEM	3 20.30	U.7	IVA	ine.	(NA)	0.0	0.750	(94,030)	NI.	C
lach Ptc-C Sps-Pueb	2		82456-1	AC%	\$32.31	2.4	3	0.13	-0.16	86.3	1.025	\$585	R1	C
lach Ptc-C Sps-Pueb	2	10944	82456-1	Dn%	\$32.31	2.4	5	0.53	-0.36	93.6	1.030	\$1,169	R1	C
lach Ptc-C Sps-Pueb	2		824 5 6-1	Grad	\$32.31	2.4	2	NA	NA	NA	1.000	\$ 0	R1	C
OTALS & WITED MEANS		10944	82456-1	ITEM	\$32.31	2.4	NA	NA	NA	90.9	1.023	\$1,754	R1	С
ach Ptc-C Sps-Pueb	2	10944	82457-1	AC%	\$32.31	6.3	7	0.19	-0.06	89.6	1.035	\$2,154	R1	С
ach Ptc-C Sps-Pueb	2	10944	82457-1	Dn%	\$32.31	6.3	13	0.86	-0.61	95.4	1.048	\$4,929	R1	С
ach Ptc-C Sps-Pueb	2	10944	82457-1	Grad	\$32.31	6.3	4	3.80	0.00	75.2	1.002	\$77	R1	C
OTALS & WITED MEANS		10944	B2457-1	ITEM	\$32.31	6.3	NA	NA	NA	89.6	1.035	\$7,159	R1	С
ach Ptc-C Sps-Pueb	2	10944	82457-1A	AC%	\$3 2.31	5.9	6	0.08	-0.03	100.0	1.035	\$2,010	R1	С
ach Ptc-C Sps-Pueb				Dn%	\$32.31	5.9			-0.03	98.3	1.050	\$4,785	R1	C
ach Ptc-C Sps-Pueb			B2457-1A		\$32.31	5.9				100.0	1.025	\$957	R1	C
OTALS & WITED MEANS					\$32.31 \$32.31	5.9	NA .	NA	NA	99.2	1.025	\$7,752	R1	c
SINCO & TY IED MENIO			JE-TOI-IM	<u> </u>	JUE.J 1	J.J	1971	1307	.~~	JJ.2	1.071	W1,1 UZ	***	-
ach Ptc-C Sps-Pueb			32458-1		\$28.38	0.6	1	NA	NA	NA	1.000	\$0	R1	С
ach Ptc-C Sps-Pueb			32458-1		\$28.38	0.6	2	NA	NA	NA	0.996	(\$34)	R1	C
ach Ptc-C Sps-Pueb			32458-1		\$28.38	0.6	1	NA	NA	NA	1.000	\$0	R1	С
OTALS & WITED MEANS		40044 1	32458-1	ITEM	\$28.38	0.6	NA	NA	NA	0.0	0.998	(\$34)	R1	С

AND MIX			_		_			y				QPM 1	95]	
PROJECT	REG/	SUBAC	MIX	ELE-	BID	TONS	TEST	PRCE	MEAN	QUAL	PAY	Incent/		
LOCATION	UNIT	NUMBI	DESIGN	MENT	\$/TON	1000	"22"	SD	-TC	LEVI	FACT	Disinc\$	Contr	HBP
			/PRCSS					Gradat	ion is 86	Grade	don is CON	TROLLING Sleve	Code	Grad
C 1601-037		10996	HillG1	а									N1	G
Farmington Hill	5	10996	HillG1	AC%	\$25.00	0.5	1	NA	0.00	NA	1.000	\$0	N1	G
Farmington Hill	5	10996	HillG1	Dn%	\$25.00	0.5	1	NA	0.00	NA	1.000	\$0	N1	G
Farmington Hill	5	10996	HIIG1	Grad	\$25.00	0.5	1	NA	0.00	NA	1.000	\$0	N1	G
TOTALS & WITED MEANS	;	10996	HIIG1	ITEM	\$25.00	0.5	NA	NA	NA	0.0	1.000	\$0	N1	G
												-		
Farmington Hill	5	10996	H#G2-1	AC%	\$25.00	7.8	8	0.15	0.14	84.7	1.009	\$527	N1	G
Farmington Hill	5	10996	HIIIG2-1	Dn%	\$25.00	7.8	16	1.17	-0.18	92.0	1.034	\$3,289	N1	G
Farmington Hill	5	10996	HillG2-1	Grad	\$25.00	7.8	4	1.50	0.20	98.2	1.030	\$1,169	N1	G
TOTALS & WITED MEANS	;	10996	HillG2-1	ITEM	\$25.00	7.8				91.0	1.026	\$4,985	N1	G
					*							.,		_
Farmington Hill	5	10996	HillG2-2	AC%	\$25.00	11.9	12	0.20	0.17	73.8	0.931	(\$6,152)	N1	G
Farmington Hill	5	10996	HillG2-2	Dn%	\$25.00	11.9	24	0.87	-0.85	93.2	1.037	\$5,479	N1	G
Farmington Hill	5	10996	HillG2-2	Grad	\$25.00	11.9	6	85,60	-1.50	85.6	1.021	\$1,282	N1	G
TOTALS & WITED MEANS		10996	HillG2-2	ITEM	\$25.00	11.9	•	00,00	1.00	85.8	1.002	\$609	N1	G
TO THE CAN THE ME THE		,0000	1 3002-2	11.	425.00					00.0	,.002	4000	141	•
Farmington Hill	5	10996	80398	AC%	\$24.50	17.4	18	0.22	0.04	81.7	0.981	(\$2,425)	N1	С
Farmington Hill	5	10996	80398	Dn%	\$24.50	17.4	35	0.77	-0.71	95.6	1.050		N1	c
Farmington Hill	5	10996	80398		\$24.50	17.4	9	2.40	0.30			\$10,653		
	3			Grad						87.3	1.020	\$1,715	N1	C
TOTALS & WITED MEANS	300000	10996	80398	ITEM	\$24.50	17.4	NA	NA	NA	89.8	1.023	\$9,943	N1	С
0.0434 .034		11073	76410											
C 0131 - 034	•			. B	007.40	20.5	-	0.44			4.050		E1	CX
Rifle - North	3		76410	AC%	\$27.18	28.5	29	0.11	0.06	99.2	1.050	\$11,638	E1	CX
Rifle - North	3	11073	76410	Dn%	\$27.18	28.5	58	1.05	-0.47	92.1	1.019	\$7,263	E1	CX
Rifle - North	3	11073	76410	Grad	\$27.18	28.5	15	1.10	-1.50	99.7	1.050	\$7,759	E1	СХ
TOTALS & WITED MEANS	0000000000	11073	76410	ITEM	\$27.18	28.5	NA	NA	NA	95.8	1.034	\$26,660	E1	M04400000000
NO DECO DE 4		44494	04074.4										MART	~~
MC R600-054	•		64271-1	8	627.00	40.0	40	0.40	a 05	04.4	4.006	£2 022	W2	CX
Reg 6 Machine Patch	6	11124	64257-1	AC%	\$27.00	10.0	10	0.18	0.05	91.4	1.036	\$2,922	W2	CX
Reg 6 Machine Patch	6		64257-1	Dn%	\$27.00	10.0	21	0.77	-0.85	93.5	1.039	\$5,229	W2	CX
Reg 6 Machine Patch	6		64257-1	Grad	\$27.00	10.0	5	1.79	-2.20	86.1	1.013	\$682	W2	CX
TOTALS & WITED MEANS		11124	64257-1	ITEM	\$27.00	10.0	NA	NA	NA	91.4	1.033	\$8,832	W 2	CX
	_													
Reg 6 Machine Patch	6		64257-2	AC%	\$27.00	10.7	11	0.18	-0.02	92.6	1.040	\$3,464	W2	CX
Reg 6 Machine Patch	6		64257-2	Dn%	\$27.00	10.7	21	0.90	-0.55	95.1	1.048	\$6,882	W2	CX
Reg 6 Machine Patch	6		64257-2	Grad	\$27.00	10.7	6	1.75	-0.70	100.0	1.035	\$2,021	W2	CX
TOTALS & WITED MEANS		11124	64257-2	ITEM	\$27.00	10.7	NA	NA	NA	95.3	1.043	\$12,367	W2	CX
Reg 6 Machine Patch	6	11124	64271-1	AC%	\$29.00	4.0	3	0.10	0.17	100.0	1.025	\$ 870	W2	CX
Reg 6 Machine Patch	6	11124	64271-1	Dn%	\$29.00	4.0	5	0.78	-0.80	97.0	1.030	\$1,740	W2	CX
Reg 6 Machine Patch	6	11124	64271-1	Grad	\$29.00	4.0	2	NA	NA	NA	1.000	\$0	W2	CX
TOTALS & WITED MEANS		11124	64271-1	ITEM	\$29.00	4.0	NA	NA	NA	98.1	1.023	\$2,610	W2	CX
Reg 6 Machine Patch	6	11124	64271-2	AC%	\$29.00	19.0	20	0.13	-0.06	96.7	1.050	\$8,275	W2	CX
Reg 6 Machine Patch	6	11124	64271-2	Dn%	\$29.00	19.0	42	1.23	0.17	89.8	1.002	\$623	W2	CX
Reg 6 Machine Patch	6	11124	64271-2	Grad	\$29.00	19.0	10	1.34	-1.30	88.7	1.026	\$2,877	W2	CX
TOTALS & WITED MEANS		11124	64271-2	ПЕМ	\$29.00	19.0	NA	NA	NA	91.7	1.021	\$11,775	W2	CX
													· ·	
STA 0471-020		11169	85901-1	a									K2	С
SH 47, Troy Av E & W	2	11169	85901-1	AC%	\$29.00	37.9	38	0.18	-0.11	83.9	0.958	(\$13,895)	К2	С
SH 47, Troy Av E & W	2	11169	85901-1	Dn%	\$29.00	37.9	65	1.23	-0.58	86.0	0.974	(\$14,038)	K2	С
SH 47, Troy Av E & W	2			Grad	\$29.00	37.9		2.73		77.8	0.937	(\$13,965)	K2	С
TOTALS & WITED MEANS		11169		ITEM	\$29.00		NA	NA		83.7	0.962	(\$41,898)	K2	C
												,		200000000000
C 0142-028	4	11318	89976	8			000000000000000000000000000000000000000						W2	C
Buckingham - Raymer					\$18.23	9.7	10	0.11	0.09	98.4	1.040	\$2,114	W2	C
Buckingham - Raymer					\$18.23	9.7	0	NA.	NA NA	NA	1.000	\$0	W2	C
Buckingham - Raymer					\$18.23	9.7				84.4	1.024		W2	C
TOTALS & WITED MEANS														C
CINED & WENNS		11318	-031U	ITEM	\$18.23	9.7	NA	NA	NA	92.8	1.017	\$2,961	W2	_

AND MIX													(99)	
PROJECT	RBG/	1	CMIX	ELE-			TEST	1		1-	L PAY	Incent/		
LOCATION	UNIT	NCABI	pool .	Statement of the last of the l	' \$/TON	1000	uBu	SD	-TC	+			_	
			/PRCSS					Grade	stion is #6	Grad	dioa is CONT	ROLLING Sieve	Code	Grad
Destruction Description		44040	******	4.00/	***				0.00		4.050	00.040		_
Buckingham - Raymer	4	11318		AC%	\$28,58	23.0	23	0.14	0.00	97.4	1.050	\$9,843	W2	C
Buckingham - Raymer	4	11318		Dn%	\$28.58	23.0	46	1.00	-0.67	90.6	1.009	\$2,805	W2	С
Buckingham - Raymer	4	11318		Grad	\$28.58	23.0	12	2.60	0.20	86.0	1.005	\$639	W2	С
TOTALS & WITED MEANS	uldanedases	11318	89976R	ITEM	\$28.58	23.0	NA	NA	NA	91.7	1.020	\$13,287	W2	C
					**************************************									<u>.</u>
C 0063-011	4	11319		a									W2	С
Hollyoke-Neb State Line	4	11319		AC%	\$29.00	21.1	21	0.12	-0.04	98.6	1.050	\$9,178	W2	С
Hollyoke-Neb State Line	4	11319		Dn%	\$29.00	21.1	NA	NA	NA	NA	1.000	\$0	W2	С
Hollyoke-Neb State Line	4	11319		Grad	\$29.00	21.1	11	1.90	-0.50	99.7	1.040	\$4,895	W2	C
TOTALS & WITED MEANS		11319	87453-1	ITEM	\$29.00	21.1	NA	NA	NA	99.0	1.023	\$14,073	W2	С
Hollyoke-Neb State Line	4	11319		AC%	\$34.00	22.0	22	0.15	0.01	96.6	1.050	\$11,220	W2	C
Hollyoke-Neb State Line	4	11319	87452-1	Dn%	\$34.00	22.0	44	1.15	-0.77	85.1	0.968	(\$12,155)	W2	C
Hollyoke-Neb State Line	4	11319		Grad	\$34.00	22.0	11	2.00	-0.60	98.3	1.040	\$5,984	W2	С
TOTALS & WITED MEAN	4	11319	87452-1	ITEM	\$34.00	22.0	NA	NA	NA	91.2	1.007	\$5,049	W2	С
Hollyoke-Neb State Line	4	11319	87452a	AC%	\$34.00	16.0	16	0.13	-0.04	98.2	1.050	\$8,160	W2	С
Hollyoke-Neb State Line	4	11319		Dn%	\$34.00	16.0	32	0.95	-0.71	91.2	1.025	\$6,786	W2	С
Hollyoke-Neb State Line	4	11319	87452a	Grad	\$34.00	16.0	8	1.10	-0.60	100.0	1.040	\$4,352	W2	С
TOTALS & WITED MEAN	4	11319	87452a	ITEM	\$34.00	16.0	NA	NA	NA	95,1	1.035	\$19,298	W2	С
Hollyoke-Neb State Line	4	11319	87452b	AC%	\$34.00	4.5	5	0.09	-0.15	98.4	1.030	\$1,388	W2	C
Hollyoke-Neb State Line	4	11319	87452b	Dn%	\$34.00	4.5	9	0.60	-1.36	85.9	1.014	\$1,098	W2	С
Hollyoke-Neb State Line	4	11319	87452b	Grad	\$34.00	4.5	3	0.60	-2.30	100.0	1.025	\$771	W2	C
TOTALS & WITED MEAN	4	11319	87452b	ITEM	\$34.00	4.5	NA	NA	NA	92.5	1.021	\$3,257	W2	С
CR 200-040	,	11358	88600-1	a										С
Lamar Area-MP	2	11358	88600-1	AC%	\$32.89	16.4	17	0.11	-0.07	98.5	1.050	\$8,091	H1	C
Lamar Area-MP	2	11358	88600-1	Dn%	\$32.89	16.4	33	0.75	-0.55	97.6	1.050	\$13,486	H1	С
Lamar Area-MP	2	11358	88600-1	Grad	\$32.89	16.4	9	3.03	1.80	85.4	1.012	\$1,298	H1	C
TOTALS & WITED MEANS		11358	88600-1	ITEM	\$32.89	16.4	NA	NA	NA	95.4	1.042	\$22,875	H1	С
C R200-041		11359	82459-1	2							.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	***************************************	B2	С
Mach Pat/Pueblo Area	2	11359	82459-1	AC%	\$31.25	13.3	14	0.10	-0.15	93.5	1.040	\$5,013	B2	C
Wach Pat/Pueblo Area	2	11359	82459-1	Dn%	\$31.25	13.3	27	0.77	-0.20	99.2	1.050	\$10,361	82	С
Mach Pat/Pueblo Area	2	11359	82459-1	Grad	\$31.25	13.3	7	1.27	1.60	93.3	1.035	\$2,901	B2	C
TOTALS & WITED MEANS		11359	82459-1	ITEM	\$31.25	13.3	NA	NA	NA	96.3	1.044	\$18,275	B2	С
STA 0852-072		11369	83560-1	a						**********			B2	SP3/4
C 470 - South	1	11369	83560-1	AC%	\$28.50	25.5	26	0.40	0.15	52.0	0.750	(\$54,575)	B2	SP3/4
C 470 - South	1	11369	83560-1	Dn%	\$28.50	25.5	51	0.79	-0.34	98.3	1.055	\$20,011	0.00	SP3/4
C 470 - South	1	11369	83560-1	Grad	\$28.50	25.5	13	3.85	2.80	69.6	0.901	(\$14,430)	B2	SP3/4
TOTALS & WITED MEANS		11369	83560-1	ITEM	\$28.50	25.5	NA	NA	NA	78.6	0.933	(\$48,993)	B2	SP3/4
STA 385A-011		11374	88600-1	а		***************************************	*********			*********			0.00	С
Sheridan Lake-North	2	11374	88600-1	AC%	\$27.75	22.6	23	0.10	0.00	99.9	1.050	\$9,419	H1	С
Sheridan Lake-North	2		88600-1	Dn%	\$27.75	22.6	46	0.62	-1.07	93.4	1.028	\$8,889	H1	С
Sheridan Lake-North	2		88600-1	Grad	\$27.75	22.5	12	1.30	2.70	93.1	1.039	\$4,873	H1	c
OTALS & WITED MEANS			88600-1	ITEM	\$27.75	22.6	NA	NA	NA	95.3	1.037	\$23,181	H1	С
W 073-233	000000000000000000000000000000000000000	11438	84415-1	a	000000000000000000000000000000000000000	************	10000000000	03000000000	505XXXXXXXXXX	990900000000000000000000000000000000000	19151019199999	900000000000000000000000000000000000000	W2	SP3/4
Seogetown - East	1		84415-1	AC%	\$36.00	53.0	53	0.14	0.02	97.4	1.055	\$3 1,482	W2	SP3/4
eogetown - East	1		84415-1	Dn%	\$36.00	53.0	106	1.06	0.21	93.7	1.023	\$21,513	W2	SP3/4
eogetown - East	1		84415-1	Grad	\$36.00	53.0	27	1.28	-1.20	94.4	1.044	\$16,676		SP3/4
OTALS & WITED MEANS	•		84415-1	ITEM	\$36.00	53.0	NA NA	NA	NA NA	94.9	1.037	\$69,671		SP3/4
								***				300,311		J. 37 T
0503-051	000000000000000000000000000000000000000	11499	61393-1	2		000000000000000000000000000000000000000	1050000000000	000000000000000000000000000000000000000	000000000000000000000000000000000000000	140000000000		74/7422		СХ
oncha Spgs-Coaldale	5		61393-1	AC%	\$23.84	13.1	16	0.23	0.11	76.0	0.946	(\$5,096)	A2	CX
oncha Spgs-Coaldale	5		61393-1		\$23.84	13.1	NA						A2 A2	CX
	5 5			Dn%			NA 7	NA 1.00	NA NA	NA 77 5	NA 0.987	\$0 (\$792)		
oncha Spgs-Coaldale	J		61393-1	Grad	\$23.84	13.1		1.99	NA	77.5	0.987	(\$792)	A2	CX
OTALS & WTED MEANS		11499	61393-1	ITEM	\$23.84	13.1	NA	NA	NA	76.6	0.962	(\$5,889)	A2	CX

	REG/	SUBAC		ELE-		TONS			MEAN			Incent/	l i	
LOCATION	UNIT	NUMBE	DESIGN	MENT	\$/TON	1000	7227	SD	-TC	LEVL	FACT	Disinc\$	Contr	H
<u> من است کی می</u>			/PRCSS			4		Grade	tion is #8	Gradal	ion is CONT	ROLLING Slave	Code	G
n	-	44400		4.004						***				
Poncha Spgs-Coaldale	5	11499	61393-1A		\$23.84	2.0	NA	NA	NA	NA	0.750	(\$3,576)	A2	9
Poncha Spgs-Coaldale	5	11499	61393-1A	Dn%	\$23.84	2.0	NA	NA	NA	NA	0.750	(\$5,960)	A2	•
Poncha Spgs-Coaldale	5	11499	61393-1A	Grad	\$23.84	2.0	1	>2V	NA	NA	0.750	(\$2,384)	A2	(
TOTALS & WITED MEANS		11499	61393-1A	ITEM	\$23.84	2.0	NA	NA	NA	0.0	0.750	(\$11,920)	A2	(
Poncha Spgs-Coaldale	5	11499	61393A-1	AC%	\$23.84	1.5	2	NA	NA	NA	1.000	\$0	A2	(
Poncha Spgs-Coaldale	5	11499	61393A-1	Dn%	\$23.84	1.5	NA	NA	NA	NA	NA	\$0	A2	(
Poncha Spgs-Coaldale	5	11499	61393A-1	Grad	\$23.84	1.5	1	NA	NA	NA	1.000	\$0	A2	(
TOTALS & WITED MEANS		11499	61393A-1	ITEM	\$23.84	1.5	NA	NA	NA	0.0	1.000	\$0	A2	(
Poncha Spgs-Coaldale	5	11499	61393B	AC%	\$23.84	33.6	34	0.23	0.01	81.4	0.962	(\$ 9,118)	A2	(
Poncha Spgs-Coaldale	5	11499	61393B	Dn%	\$23.84	33.6	64	1.09	-1.08	79.9	0.927	(\$29,050)	A2	ò
Poncha Spgs-Coaldale	5	11499	61393B	Grad	\$23.84	33.6	17	1.74	1.80	84.8	0.998	(\$320)	A2	ò
TOTALS & WITED MEANS	3	11499	61393B	ITEM	\$23.84	33.6	NA	NA.	NA	81.4	0.952		A2	Č
IOIALS & VI TED MEANS		11403	013830	II C.M	923.04	33.0		IVA	IVA	01.4	0.532	(\$38,489)		100
CX-CY 11-0121-75	10000000000000	90448	64257-1	**************************************		200000000000		0200000000000000			0300000000000	*****	W2	0000
Wads. Blwd, 58th to 64th	6	90448	64257-1	AC%	\$24.00	13.0	14	0.21	0.15	75.9	0.945	(\$5,148)	W2	
Wads. Blvd, 58th to 64th	6	90448	64257-1	Dn%	\$24.00	13.0	26	1.00	-1.22	78.0	0.938	(\$9,642)	W2	1
Wads, Blvd, 58th to 64th	6	90448	64257-1	Grad	\$24.00	13.0	7	1.95	1.10	91.1	1.035	\$2,184	W2	
OTALS & WITED MEANS		90448	64257-1	ITEM	\$24.00	13.0	NA	NA	NA	80.0	0.960	(\$12,606)	W2	-
Vads. Blvd, 58th to 64th	6	D	64257-1A	AC%	\$24.00	1.0	NA	NA	NA	NA	0.500	(\$3,600)	W2	
Wads. Blvd, 58th to 64th	6	ō	64257-1A	Dn%	\$24.00	1.0	2	NA	NA	NA	0.500	(\$6,000)	W2	
Vads. Blvd, 58th to 64th	6	0	64257-1A	Grad	\$24.00	1.0	NA	NA	NA	NA	0.500	(\$2,400)	W2	Ì
OTALS & WITED MEANS	•	ō	64257-1A	ITEM	\$24.00	1.0	NA	NA	NA	NA	0.500	(\$12,000)	W2	
STR-SR(CX) 0086-024		91052	66486-1	а									S1	(
(iowa - East	1	91052	66486 -1	AC%	\$27.27	9.3	10	0.12	-0.07	98.6	1.040	\$3,040	S1	(
(iowa - East	1	91052	66486-1	Dn%	\$27.27	9.3	19	1.21	-0.24	90.5	1.021	\$2,645	S1	(
Jowa - East	1	91052	66486-1	Grad	\$27.27	9,3	5	2.28	0.80	94.4	1.030	\$1,520	S1	(
OTALS & WITED MEANS		91052	66486-1	ITEM	\$27.27	9.3	NA	NA	NA	93.7	1.028	\$7,204	S1	
X 56-0550-12	3	91416	84776	8									U1	
Montrose - Co Line			B4776	AC%	\$25.00	6.8	7	0.16	0.20	72.2	0.960	(\$2,040)	U1	ò
Montrose - Co Line			84776	Dn%	\$25.00	6.8	14	1.04	-0.21	95.3	1.048	\$4,069	U1	Č
Montrose - Co Line			84776	Grad	\$25.00	6.8	4	1.30	-1.50	97.5	1.030	\$1,021	U1	ò
OTALS & WITED MEANS	_		B4776	ITEM	\$25.00	6.8	NA.	NA	NA NA	86.6	1.018	\$3,050	U1	ď
		91410	J-11 1 U	116.00	423.00	0.0	117	19/1	14/1	00.0	1.010	43,030	J1	
Montrose - Co Line	3	91416	B4776A	AC%	\$25.00	11.8	12	0.19	-0.05	88.5	1.018	\$1,549	U1	c
Montrose - Co Line	3	91416	84776A	Dn%	\$25.00	11.8	24	1.00	-0.30	95.1	1.048	\$7,024	U1	c
Montrose - Co Line	3	91416	34776A	Grad	\$25.00	11.8	6	1.40	-1.70	98.4	1.035	\$2,056	U1	C
OTALS & WITED MEANS		91416			\$25.00	11.8				93.8	1.036	\$10,629	U1	C

REG/ Init	SUBAC	MIX	RIE-	BID	TONS	TEST		14.000	I ACT TO T	195.00			
MIT							PRCE	MEAN	OWT	PAY	Incent/	1 1	f
	NUMBR	DESIGN	MENT	\$/TON	1000	"ID"	SD	-TC	FEAF	FACT	Disinc\$	Contr	HBP
		/PRCSS					Gradati	an is #6	Gradeti	on is CONT	ROLLING Sime	Code	Grad
	92303	82246-1	à									C2	С
4	92303	82246-1	AC%	\$27.50	4.7	5	0.21	-0.16	73.5	0.979	(\$814)	C2	C
4	92303	82246-1	Dn%	\$27.50	4.7	9	0.71	-0.56	99.2	1.040	\$2,599	C2	C
4	92303	8224 6 -1	Grad	\$27.50	4.7	2	NA	-3.50	NA	1.000	\$0	CS	С
	92303	82246-1	ITEM	\$27.50	4.7	NA	NA	NA	89.6	1.014	\$1,784	C2	С
4	92303	82246A	AC%	\$27.50	6.1	6	0.11	0.19	100.0	1.035	\$1,758	C2	С
4	92303	82246A	Dn%	\$27.50	6.1	12	0.98	-0.80	89.2	1,028	\$2,369	C2	C
4	92303	82246A	Grad	\$27.50	6.1	4	0.00	-5.00	88.7	1.030	\$1,005	C2	С
	92303	82246A	ITEM	\$27.50	6.1	NA	NA	NA	92.3	1.031	\$5,132	C2	C
4	92303	82245-1	AC%	\$32.50	4.6	5	0.10	-0.10	100.0	1.030	\$1,337	C2	С
4	92303	82245-1	Dn%	\$32.50	4.6	10	0.51	-0.97	98.9	1.040	\$2,971	C2	Ç
4	92303	82245-1	Grad	\$32.50	4.6	2	NA	-5.50	NA	0.984	(\$473)	C2	С
	92303	82245-1	ITEM	\$32.50	4.6	NA	NA	NA	99.3	1.026	\$3,834	C2	С
4	92303	82245-1A	AC%	\$32.50	0.2	1	>2V	NA	NA	0.500	(\$1,136)	C2	С
4	92303	82245-1A	Dn%	\$32.50	0.2	NA	NA	NA	NA	0.500	(\$1,893)	C2	C
4	92303	82245-1A	Grad	\$32.50	0.2	NA	NA	NA	NA	0.500	(\$757)	C2	C
	92303	82245-1A	ITEM	\$32.50	0.2	NA	NA	NA		0.500	(\$3,786)	C2	C
	92319	R6018-1	2 a			.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						K1	С
6	92319	R6018-1	AC%	\$32.00	6.2	7	0.12	-0.13	93.0	1.035	\$2,075	K1	C
6	92319	R6018-1	Dn%	\$32.00	6.2	13	0.94	-1.08	83.8	0.993	(\$735)	K1	C
6	92319	R6018-1	Grad	\$32.00	6.2	4	2.80	-2.20	83.3	1.030	\$1,186	K1	C
	92319	R6018-1	ITEM	\$32.00	6.2	NA	NA	NA	86.4	1.013	\$2,526	K1	С
	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	4 92303 4 92303 92303 92303 92303 4 92303 4 92303 4 92303 4 92303 4 92303 4 92303 4 92303 4 92303 92303 92303 92303 92303 92319 6 92319 6 92319	4 92303 82248-1 4 92303 82246-1 4 92303 82246-1 92303 82246-1 4 92303 82246A 4 92303 82246A 4 92303 82246A 4 92303 82245-1 4 92303 82245-1 4 92303 82245-1 4 92303 82245-1 4 92303 82245-1 92303 82245-1 6 92319 R6018-1 6 92319 R6018-1 6 92319 R6018-1	4 92303 82248-1 AC% 4 92303 82246-1 Dn% 4 92303 82246-1 ITEM 4 92303 82246-1 ITEM 4 92303 82246A AC% 4 92303 82246A Dn% 4 92303 82246A ITEM 4 92303 82246A ITEM 4 92303 82245-1 AC% 4 92303 82245-1 Dn% 4 92303 82245-1 ITEM 4 92303 82245-1 Grad 92303 82245-1 ITEM 4 92303 82245-1 ITEM 4 92303 82245-1 ITEM 92303 82245-1 ITEM 92303 82245-1 AC% 92303 82245-1 ITEM 92303 82245-1 AC% 92303 82245-1 Dn% 6 92319 R6018-1 AC% 6 92319 R6018-1 Dn% 6 92319 R6018-1 Dn% 6 92319 R6018-1 Grad	4 92303 82248-1 AC% \$27.50 4 92303 82246-1 Dn% \$27.50 4 92303 82246-1 ITEM \$27.50 92303 82246-1 ITEM \$27.50 4 92303 82246A AC% \$27.50 4 92303 82246A Dn% \$27.50 4 92303 82246A Dn% \$27.50 92303 82246A ITEM \$27.50 92303 82246A ITEM \$27.50 4 92303 82245-1 AC% \$32.50 4 92303 82245-1 Dn% \$32.50 92303 82245-1 ITEM \$32.50 4 92303 82245-1 ITEM \$32.50 4 92303 82245-1 ITEM \$32.50 4 92303 82245-1 ITEM \$32.50 92319 R6018-1 AC% \$32.00 6 92319 R6018-1 Dn% \$32.00 6 92319 R6018-1 Dn% \$32.00 6 92319 R6018-1 Dn% \$32.00	4 92303 82246-1 Dn% \$27.50 4.7 4 92303 82246-1 Dn% \$27.50 4.7 4 92303 82246-1 Grad \$27.50 4.7 92303 82246-1 ITEM \$27.50 4.7 4 92303 82246-1 ITEM \$27.50 6.1 4 92303 82246A Dn% \$27.50 6.1 92303 82246A Grad \$27.50 6.1 92303 82246A ITEM \$27.50 6.1 4 92303 82246A ITEM \$27.50 6.1 4 92303 82245-1 AC% \$32.50 4.6 4 92303 82245-1 Dn% \$32.50 4.6 92303 82245-1 ITEM \$32.50 4.6 4 92303 82245-1 ITEM \$32.50 4.6 92303 82245-1 Grad \$32.50 4.6 92303 82245-1 ITEM \$32.50 0.2 4 92303 82245-1 ITEM \$32.50 0.2 92319 R6018-1 a 6 92319 R6018-1 a 6 92319 R6018-1 Dn% \$32.00 6.2 6 92319 R6018-1 Dn% \$32.00 6.2	4 92303 82246-1 AC% \$27.50 4.7 9 4 92303 82246-1 Dn% \$27.50 4.7 9 4 92303 82246-1 Grad \$27.50 4.7 2 92303 82246-1 ITEM \$27.50 4.7 NA 4 92303 82246A AC% \$27.50 6.1 6 4 92303 82246A Dn% \$27.50 6.1 12 4 92303 82246A Grad \$27.50 6.1 12 4 92303 82246A ITEM \$27.50 6.1 NA 4 92303 82246A ITEM \$27.50 6.1 NA 4 92303 82245-1 AC% \$32.50 4.6 5 4 92303 82245-1 Dn% \$32.50 4.6 10 4 92303 82245-1 ITEM \$32.50 4.6 NA 4 92303 82245-1 Grad \$32.50 4.6 NA 4 92303 82245-1 ITEM \$32.50 0.2 NA	4 92303 82248-1 AC% \$27.50 4.7 5 0.21 4 92303 82246-1 Dn% \$27.50 4.7 9 0.71 4 92303 82246-1 Grad \$27.50 4.7 2 NA 92303 82246-1 ITEM \$27.50 4.7 NA NA 4 92303 82246A AC% \$27.50 6.1 6 0.11 4 92303 82246A Dn% \$27.50 6.1 12 0.98 4 92303 82246A Grad \$27.50 6.1 12 0.98 4 92303 82246A ITEM \$27.50 6.1 NA NA 4 92303 82246A ITEM \$27.50 6.1 NA NA 4 92303 82246A ITEM \$27.50 6.1 NA NA 4 92303 82245-1 Dn% \$32.50 4.6 5 0.10 4 92303 82245-1 Dn% \$32.50 4.6 10 0.51 4 92303 82245-1 ITEM \$32.50 4.6 NA NA 4 92303 82245-1 ITEM \$32.50 4.6 NA NA 92303 82245-1 ITEM \$32.50 0.2 NA NA 92303 82245-1A Dn% \$32.50 0.2 NA NA 92303 82245-1A ITEM \$32.50 0.2 NA NA	4 92303 82246-1 Dn% \$27.50 4.7 5 0.21 -0.16 4 92303 82246-1 Dn% \$27.50 4.7 9 0.71 -0.56 4 92303 82246-1 Grad \$27.50 4.7 2 NA -3.50 92303 82246-1 ITEM \$27.50 4.7 NA NA NA NA 4 92303 82246A AC% \$27.50 6.1 6 0.11 0.19 4 92303 82246A Dn% \$27.50 6.1 12 0.98 -0.80 4 92303 82246A Grad \$27.50 6.1 4 0.00 -5.00 92303 82246A ITEM \$27.50 6.1 NA NA NA 4 92303 82246A ITEM \$27.50 6.1 NA NA NA 4 92303 82245-1 AC% \$32.50 4.6 5 0.10 -0.10 4 92303 82245-1 Dn% \$32.50 4.6 10 0.51 -0.97 4 92303 82245-1 Grad \$32.50 4.6 NA NA NA 4 92303 82245-1 ITEM \$32.50 4.6 NA NA NA 4 92303 82245-1 ITEM \$32.50 0.2 1 >2V NA 5.50 92303 82245-1 Dn% \$32.50 0.2 NA NA NA 92303 82245-1A ITEM \$32.50 0.2 NA NA NA	4 92303 82246-1 Dn% \$27.50 4.7 5 0.21 -0.16 73.5 4 92303 82246-1 Dn% \$27.50 4.7 9 0.71 -0.56 99.2 4 92303 82246-1 Grad \$27.50 4.7 2 NA -3.50 NA 92303 82246-1 ITEM \$27.50 4.7 NA NA NA NA 89.6 4 92303 82246A AC% \$27.50 6.1 6 0.11 0.19 100.0 4 92303 82246A Dn% \$27.50 6.1 12 0.98 -0.80 89.2 4 92303 82246A Grad \$27.50 6.1 12 0.98 -0.80 89.2 4 92303 82246A Grad \$27.50 6.1 4 0.00 -5.00 88.7 92303 82246A ITEM \$27.50 6.1 NA NA NA 92.3 4 92303 82245-1 Dn% \$32.50 4.6 5 0.10 -0.10 100.0 4 92303 82245-1 Dn% \$32.50 4.6 10 0.51 -0.97 98.9 4 92303 82245-1 Grad \$32.50 4.6 2 NA -5.50 NA 92303 82245-1 ITEM \$32.50 4.6 NA NA NA 99.3 4 92303 82245-1 ITEM \$32.50 0.2 NA NA NA NA 99.3 4 92303 82245-1A AC% \$32.50 0.2 NA NA NA NA 99.3 4 92303 82245-1A Grad \$32.50 0.2 NA NA NA NA NA 92.3 5 92319 R6018-1 a 6 92319 R6018-1 a 6 92319 R6018-1 Dn% \$32.00 6.2 7 0.12 -0.13 93.0 6 92319 R6018-1 Dn% \$32.00 6.2 13 0.94 -1.08 83.8 6 92319 R6018-1 Grad \$32.00 6.2 4 2.80 -2.20 83.3	4 92303 82246-1 Dn% \$27.50 4.7 5 0.21 -0.16 73.5 0.979 4 92303 82246-1 Dn% \$27.50 4.7 9 0.71 -0.56 99.2 1.040 4 92303 82246-1 Grad \$27.50 4.7 2 NA -3.50 NA 1.000 92303 82246-1 ITEM \$27.50 4.7 NA NA NA NA 89.6 1.014 4 92303 82246A AC% \$27.50 6.1 6 0.11 0.19 100.0 1.035 4 92303 82246A Dn% \$27.50 6.1 12 0.98 -0.80 89.2 1.028 4 92303 82246A Grad \$27.50 6.1 4 0.00 -5.00 88.7 1.030 92303 82246A ITEM \$27.50 6.1 NA NA NA 92.3 1.031 4 92303 82245-1 AC% \$32.50 6.1 NA NA NA 92.3 1.031 4 92303 82245-1 Dn% \$32.50 4.6 10 0.51 -0.97 98.9 1.040 4 92303 82245-1 Grad \$32.50 4.6 10 0.51 -0.97 98.9 1.040 4 92303 82245-1 ITEM \$32.50 4.6 NA NA NA 99.3 1.026 4 92303 82245-1 ITEM \$32.50 0.2 NA NA NA 99.3 1.026 4 92303 82245-1A C% \$32.50 0.2 NA NA NA 0.500 92303 82245-1A ITEM \$32.50 0.2 NA NA NA NA 0.500 92303 82245-1A ITEM \$32.50 0.2 NA NA NA NA 0.500 92303 82245-1A ITEM \$32.50 0.2 NA NA NA NA 0.500 92303 82245-1A ITEM \$32.50 0.2 NA NA NA NA 0.500 92303 82245-1A ITEM \$32.50 0.2 NA NA NA NA 0.500 92303 82245-1A ITEM \$32.50 0.2 NA NA NA NA 0.500 92303 82245-1A ITEM \$32.50 0.2 NA NA NA NA 0.500 92319 R6018-1 a 6 92319 R6018-1 Grad \$32.00 6.2 7 0.12 -0.13 93.0 1.035 6 92319 R6018-1 Dn% \$32.00 6.2 13 0.94 -1.08 83.8 0.993 6 92319 R6018-1 Grad \$32.00 6.2 4 2.80 -2.20 83.3 1.030	4 92303 82248-1 AC% \$27.50 4.7 5 0.21 -0.16 73.5 0.979 (\$814) 4 92303 82246-1 Dn% \$27.50 4.7 9 0.71 -0.56 99.2 1.040 \$2,599 4 92303 82246-1 Grad \$27.50 4.7 2 NA -3.50 NA 1.000 \$0 92303 82246-1 ITEM \$27.50 4.7 NA NA NA NA 89.6 1.014 \$1,784 4 92303 82246A AC% \$27.50 6.1 6 0.11 0.19 100.0 1.035 \$1,758 4 92303 82246A Dn% \$27.50 6.1 12 0.98 -0.80 89.2 1.028 \$2,369 4 92303 82246A Grad \$27.50 6.1 4 0.00 -5.00 88.7 1.030 \$1,005 92303 82246A ITEM \$27.50 6.1 NA NA NA 92.3 1.031 \$5,132 4 92303 82245-1 AC% \$32.50 4.6 5 0.10 -0.10 100.0 1.030 \$1,337 4 92303 82245-1 Dn% \$32.50 4.6 10 0.51 -0.97 98.9 1.040 \$2,971 4 92303 82245-1 Grad \$32.50 4.6 2 NA -5.50 NA 0.984 (\$473) 92303 82245-1 ITEM \$32.50 4.6 NA NA NA 99.3 1.026 \$3,834 4 92303 82245-1 ITEM \$32.50 0.2 1 >2V NA NA 0.500 (\$1,136) 4 92303 82245-1A AC% \$32.50 0.2 NA NA NA NA 0.500 (\$1,893) 4 92303 82245-1A Grad \$32.50 0.2 NA NA NA NA 0.500 (\$1,893) 4 92303 82245-1A Grad \$32.50 0.2 NA NA NA NA 0.500 (\$3,786) 92319 R6018-1 a 6 92319 R6018-1 AC% \$32.00 6.2 7 0.12 -0.13 93.0 1.035 \$2,075 6 92319 R6018-1 Dn% \$32.00 6.2 13 0.94 -1.08 83.8 0.993 (\$735) 6 92319 R6018-1 Grad \$32.00 6.2 4 2.80 -2.20 83.3 1.030 \$1,186	4 92303 82248-1 AC% \$27.50 4.7 5 0.21 -0.16 73.5 0.979 (\$814) C2 4 92303 82246-1 Dn% \$27.50 4.7 9 0.71 -0.56 99.2 1.040 \$2,599 C2 4 92303 82246-1 ITEM \$27.50 4.7 2 NA -3.50 NA 1.000 \$0 C2 92303 82246-1 ITEM \$27.50 4.7 NA NA NA NA 89.6 1.014 \$1,784 C2 4 92303 82246A AC% \$27.50 6.1 6 0.11 0.19 100.0 1.035 \$1,758 C2 4 92303 82246A Dn% \$27.50 6.1 12 0.98 -0.80 89.2 1.028 \$2,369 C2 4 92303 82246A Grad \$27.50 6.1 12 0.98 -0.80 89.2 1.028 \$2,369 C2 92303 82246A ITEM \$27.50 6.1 NA NA NA NA 92.3 1.031 \$5,132 C2 92303 82246A ITEM \$27.50 6.1 NA NA NA NA 92.3 1.031 \$5,132 C2 4 92303 82245-1 AC% \$32.50 4.6 5 0.10 -0.10 100.0 1.030 \$1,337 C2 4 92303 82245-1 Dn% \$32.50 4.6 10 0.51 -0.97 98.9 1.040 \$2,971 C2 92303 82245-1 ITEM \$32.50 4.6 NA NA NA 99.3 1.026 \$3,834 C2 4 92303 82245-1 Grad \$32.50 4.6 NA NA NA 99.3 1.026 \$3,834 C2 4 92303 82245-1 ITEM \$32.50 0.2 NA NA NA NA 0.500 (\$1,136) C2 92303 82245-1A Grad \$32.50 0.2 NA NA NA NA 0.500 (\$1,893) C2 92303 82245-1A ITEM \$32.50 0.2 NA NA NA NA 0.500 (\$1,389) C2 92303 82245-1A ITEM \$32.50 0.2 NA NA NA NA 0.500 (\$3,786) C2 92319 R6018-1 a 6 92319 R6018-1 Dn% \$32.00 6.2 7 0.12 -0.13 93.0 1.035 \$2,075 K1 6 92319 R6018-1 Dn% \$32.00 6.2 13 0.94 -1.08 83.8 0.993 (\$735) K1 6 92319 R6018-1 Grad \$32.00 6.2 4 2.80 -2.20 83.3 1.030 \$1,186 K1

TABLE 2
HOT BITUMINOUS PAVEMENT QC/QA DETAILS & SUMMARY BY ELEMENT, PROJECT AND MIX DESIGN FOR 1996 CONSTRUCTION SEASON USING QPM 2 (95)

PROJECT	PEG	-		ELE	- BID	TONS		PRCES		QUAL	PAY	M 2 (90)		
LOCATION	NO.		DESIGN		\$/TON	1000	"n"	SD	-TC	LEVL	FACT	Disinc\$	Contr	HBP
			/PRCSS					Oredallos Is	#	Gradation is	CONTROLL	NG Slove	Code	Grad
					<u>ASPHAI</u>	LT CO	NTEN	<u>T</u>						
Lena Guich	6	10304	64268-1	AC%	\$25.00	12.4	12	0.18	0.02	96.7	1.050	\$4,658	A1	
SH 93 & Golden Gate C	6	10306	64268-1	AC%	\$27.00	10.0	10	0.13	0.16	86.3	1.016	\$1,303	A1	С
West of Granby W	3	10395	90860-1	AC%	\$27.31	24.0	24	0.17	-0.07	90.4	1.021	\$4,035	C4	СХ
SH 257, US 34-Poudre	4	10595	81701A	AC%	\$27.60	9.4	10	0.17	0.14	81.1	0.993	(\$585)	C2	C
Royal Gorge - East	2	10652	87163A-1	AC%	\$24.89	35.8	36	0.17	0.13	83.4	0.976	(\$8,494)	H1	C
6TH & Union	6	10679	84248A-1	AC%	\$29.53	4.9	5	0.12	-0.22	96.3	1.030	\$1,313	B1	С
5TH & Union	6	10879	64254C-1	AC%	\$29.53	22.6	23	0,15	-0.02	99.5	1,050	\$10,032	B1	С
Greenland - North	1	10768	B5442-1	AC%	\$32.00	16.6	17	0.22	0.02	82.8	0.987	(\$2,078)	K1	С
Greenland - North	1	10768	65442A-1	AC%	\$33.00	7.2	8	0.22	-0.21	78.9	0.981	(\$1,332)	K1	С
Greenland - North	1	10758	65442B-1	AC%	\$32.00	13.1	13	0.17	0.12	85.3	1.001	\$120	K1	С
Greenland - North	- 1	10768	83239-1	AC%	\$33.00	13.2	14	0.19	0.04	89.6	1.023	\$2,977	K1	С
Greenland - North	1	10768	83238A-1	AC%	\$34.00	5.5	6	0.30	0.14	63.6	0.907	(\$5,225)	K1	c
SH385, 20 Mi S of I 70 N	1	10769	88800-1	AC%	\$30.28	26.9	27	0.10	0.06	99.5	1.050	\$12,232	H1	С
10 M N Cheyenne Wells	1	10790	68600-1	AC%	\$38.00	3.0	3	0.02	0.01	100.0	1.025	\$848	G1	c
So Rockport- Wyo St Line	4	10857	80899A	AC%	\$28.85	3.0	3	0.12	0.15	100.0	1,025	\$841	W2	
So Rockport- Wyo St Line	4	10857	80699B	AC%	\$28.85	21.6	22	0.08	0.06	100.0	1.050	\$9,341	W2	c
So Rockport- Wyo St Line	4	10857	80699C	AC%	\$29.85	5,0		0.07	0.14	100.0	1.030	\$1,335	W2	c
So Rockport- Wyo St Line	4	10857	81942C	AC%	\$23.50	2.0	2	NA NA	NA.	NA NA	1,000	\$0	W2	
So Rockport- Wyo St Line	-		81942a	AC%	\$22.50	13.7	14	0.14	-0.04	97.4	1.050	\$4,620	WZ	-
-	4	10857					2	NA NA					W2	c
So Rockport- Wyo St Line		10857		AC%	\$22.50	1.4	_	_	NA NA	NA NA	1.000	\$0		
Martin St (Longmont)- ! 25	4	10858		AC%	\$29.00	1.1	1	NA O	NA O	NA OF F	1.000	\$0	81	<u> </u>
Martin St (Longmont)- I 25	4	10858		AC%	\$24.90	19.0	19	0.21	0.04	85.2	0.987	(\$1,801)	B1	c
Martin St (Longmont)- I 25	4	10858		AC%	\$24,90	10.9	10	0.20 NA	0.04	86.4	1.017	\$1,348	B1	c
Martin St (Longmont)- 1 25		10858		AC%	\$24.90	0.9	1		NA O	NA SAA	1.000	\$0	B1 B1	-cx
Martin St (Longmort)- 1 25	4	10858		AC%	\$20.00	5.0	5	0.31	-0.04	64.4	0.929	(\$2,124)		
Martin St (Longmont)- 1 25	4	10658		AC%	\$20.00	1.2	1	NA .	>2V	NA T	0.750	(\$1,800)	B1	CX
Mach Ptc-C Sps-Pueb	2			AC%	\$32.31	6.5	7	0.24	-0.13	74.0	0.970	(\$1,908)	R1	С
Mach Pto-C Spe-Pueb	2			AC%	\$32.31	6.6	7	0.19	0.02	91.8	1.035	\$2,240	R1	c
Mach Ptc-C Sps-Pueb	2			AC%	\$28.38	22.3	23	0.14	0.02	97.4	1.050	\$9,474	R1	С
Mach Ptc-C Sps-Pueb	2	10944	82455-1A	AC%	\$28.38	0.7	1	NA .	>2xV	NA .	0.750	(\$1,469)	R1	С
Mach Ptc-C Spe-Pueb	2	10944	52456-1	AC%	\$32.31	24	3	0.13	-0.16	86.3	1,025	\$585	R1	С
Mach Ptc-C Sps-Pueb	_2	10944	82457-1	AC%	\$32.31	6.3	7	0.19	-0.06	89,6	1.035	\$2,154	R1	C
Mach Pto-C Spe-Pueb	2	10944	82457-1A	AC%	\$32.31	5.9	6	0.08	-0.03	100.0	1.035	\$2,010	R1	С
Mach Ptc-C Spe-Pueb	2	10944	82458-1	4C%	\$28.38	0.6	1	NA .	NA	NA	1.000	\$0	R1	С
Farmington Hilf	5	10996	A80398 /	NC%	\$24.50	17.4	18	0.22	0.04	81.7	0.981	(\$2,425)	N1	С
Famington Hill	5	10996	HIIG1 /	1C%	\$25.00	0.5	1	NA .	0.00	NA	1.000	\$0	N1	G
Farmington Hill	5	10996	HWG2-1 /	VC%	\$25.00	7.8	8	0.15	0.14	84.7	1.009	\$527	N1	G
Farmington Hill	6	10996	HNIG2-2	NC%	\$25.00	11.9	12	0,20	0.17	73.8	0.931	(\$6,152)	N1	G
Rifle - North	3	11073	76410 /	VC%	\$27.18	28.5	29	0.11	0.06	99.2	1.050	\$11,638	E1	сх
Reg 6 Machine Patch	6	11124	54257-1 A	VC%	\$27.00	10.0	10	0.18	0.05	91.4	1.036	\$2,922	W2	СХ
Reg 6 Machine Patch	6	11124	84257-2 <i>A</i>	VC%	\$27.00	10,7	11	0.18	-0.02	92.6	1.040	\$3,464	W2	сх
Reg 6 Machine Patch	6	11124	84271-1 A	VC%	\$29.00	4.0	3	0.10	0.17	100.0	1.025	\$870	W2	ОX
Reg 6 Machine Patch	6	11124	34271-2 A	IC%	\$29.00	19.0	20	0.13	-0.06	96.7	1.050	\$8,275	W2	ox
SH 47, Troy Av E & W	2	11169 8	35901-1 A	C%	\$29.00	37.9	38	0.18	-0.11	83.9	0.958	(\$13,895)	K2	С
Suckingham - Raymer	4	11318 8	19976 A	C%	\$18.23	9.7	10	0.11	0.09	98.4	1.040	\$2,114	W2	С
Buckingham - Raymer	4	11318 8	9976R A	C%	\$28.58	23.0	23	0.14	0.00	97.4	1.050	\$9,84 3	W2	5
iollyoke-Neb State Line	4	11319 8	17452-1 A	C%	\$34.00	22.0	22	0.15	0.01	96.6	1.050	\$11,220	W2	c
follyoke-Neb State Line	4	11319 8	7452a A	C%	\$34.00	16.0	16	0.13 -	0.04	98.2	1.050	\$8,160	W2	С
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TABLE 2
HOT BITUMINOUS PAVEMENT QC/QA DETAILS & SUMMARY BY ELEMENT, PROJECT
AND MIX DESIGN FOR 1996 CONSTRUCTION SEASON USING QPM 2 (95)

PROJECT	REG	SUBAC	MIX	ELE-	BID	TONS	TEST	PRCES	MEAN	QUAL	PAY	Incent/		
LOCATION	NO.	HUMBR	DESIGN	MENT	\$/TON	1000	"n"	SD	-TC	LEVL	PACT	Disinc\$	Contr	HBP
			/PRCSS				ope from	Gradation is	#	Gradation is	CONTROLL	NG Steve	Code	Grad
Hollyoke-Neb State Line	4	11319	87452b	AC%	\$34.00	4.5	5	0.09	-0.15	98.4	1.030	\$1,388	W2	С
Hollyoke-Neb State Line	4	11319	87453-1	AC%	\$29.00	21.1	21	0.12	-0.04	98.6	1.050	\$9,178	W2	Ç
Lamar Area-MP	2	11358	88600-1	AC%	\$32.88	16.4	17	0.11	-0.07	98.5	1.050	\$8,091	H1	С
Mach Pat/Pueblo Area	2	11359	82459-1	AC%	\$31.25	13.3	14	0.10	-0.15	93.5	1.040	\$5,013	B 2	С
C 470 - South	1	11369	83560-1	AC%	\$28.50	25.5	26	0.40	0.15	52.0	0.750	(\$54,575)	B1	SP3/4
Sheridan Lake-North	2	11374	88600-1	AC%	\$27.75	22.6	23	0.10	0.00	99.9	1.050	\$9,419	H1	С
Geogetown - East	1	11438	84415-1	AC%	\$36.00	53.0	53	0.14	0.02	97.4	1.055	\$31,482	W2	SP3/4
Poncha Spgs-Coaldale	5	11499	61393-1	AC%	\$23.84	13.1	16	0.23	0.11	76.0	0.946	(\$5,096)	A2	СХ
Poncha Spgs-Coaldale	5	11499	61393-1A	AC%	\$23.84	2.0	NA	NA	NA	NA	0.750	(\$3,576)	A2	сх
Poncha Spgs-Coaldale	5	11499	61393A-1	AC%	\$23.84	1.5	2	NA	NA	NA	1.000	\$0	A2	сх
Poncha Spgs-Coaldale	5	11498	613938	AC%	\$23.84	33.6	34	0.23	0.01	81.4	0.962	(\$9,118)	A2	сх
Wads. Blvd, 58th to 64th	6	90448	64257-1	AC%	\$24.00	13.0	14	0.21	0.15	75.9	0.945	(\$5,148)	W2	С
Wads. Blvd, 58th to 64th	6	90448	64257-1A	AC%	\$24.00	1.0	NA	NA.	NA	NA	0.500	(\$3,600)	W2	С
Klowa - East	1	91052	68486-1	AC%	\$27.27	9.3	10	0.12	-0.07	98.6	1,040	\$3,040	S 1	c
S Montrose - Co Line	3	91416	84776	AC%	\$25.00	6.8	7	0.16	0.20	72.2	0.960	(\$2,040)	U1	С
S Montrose - Co Line	3	91416	84776A	AC%	\$25.00	11.8	12	0.19	-0.05	88.5	1.018	\$1,549	U1	C
Estes Park East & West	4	92303	82245-1	AC%	\$32.50	4.6	5	0.10	-0.10	100.0	1.030	\$1,337	C 2	С
Estes Park East & West	4	92303	82245-1A	AC%	\$32.50	0.2	1	>2V	NA	NA	0.500	(\$1,136)	C2	С
Estes Park East & West	4	92303	82246-1	AC%	\$27.50	4.7	5	0.21	-0.16	73.5	0.979	(\$814)	C2	С
Estes Park East & West	4	92303	82246A	AC%	\$27.50	6.1	6	0.11	0.19	100.0	1.035	\$1,758	C2	С
Parker Road	6	92319	R6018-1	AC%	\$32.00	6.2	7	0.12	-0.13	93.0	1.035	\$2,075	K1	С
					\$28.59	829.6	847	0.164	0.018	89.794	1.0077	\$72,239		

ASPHALT PERCENT TOTALS & AVG (ALL GRADINGS) 1896 ASPHALT PERCENT TOTALS & AVG (ALL GRADINGS) 1896 Differences: 1896-1995

\$28.59		847	0.164				\$72,239
\$30.36	327.9	342	0.178	0.017	118.658	1.0005	\$1,443
(\$1.77)	501.8	505	-0.014	0.001	1.138	0.0073	\$70,796
			Absolute	0.070			

AND MIX DESIGN FOR 1996 CONSTRUCTION S														
PROJECT LOCATION		NUMBI		ELE-	\$/TON		TEST	PRCES	MEAN -TC	TEAT	PAY	Incent/ Disinc\$	Contr	HBP
DOCATION	"NO.	IMORES	/PRCSS	Character Control of	97 ION	1000		Gradation A			CONTROLLS		4	Grad
					IN-PLA	CE DI	ENSIT	Υ						
Lene Guich	6	10304	64268-1	Dn%	\$25.00	12.4	25	0.77	-0.40	98.5	1.050	\$7,783	A1	С
SH 93 & Golden Gate C	6	10306	64268-1	Dn%	\$27.00	10.0	20	0.73	-0.88	94.3	1.043	\$5,839	A1	С
West of Granby W	3	10395	90860-1	On%	\$27.31	24.0	47	9.98	-0.57	92.5	1.022	\$7,295	C4	СХ
SH 257, US 34-Poudre	4	10595	81701A	Dn%	\$27.60	9.4	19	0.68	-1.04	92.9	1.035	\$4,608	CZ	С
Royal Gorge - East	2	10652	87163A-1	Dn%	\$24.89	35.8	72	0.83	-0.27	98.0	1.060	\$26,674	H1	С
6TH & Union	6	10679	64248A-1	Dn%	\$29.53	4,9	10	0.85	0.14	99.5	1.040	\$2,919	B1	С
6TH & Union	6	10679	64254C-1	Dn%	\$29.53	22.6	46	1.18	-0.67	86.1	0.975	(\$8,403)	B1	С
Greenland - North	1	10768	65442-1	Dn%	\$32.00	16.6	34	1.09	-0.81	85.8	0.991	(\$2,321)	K1	С
Greenland - North	1	10768	65442A-1	Dn%	\$33.00	7.2	NA	NA.	NA	NA.	1.000	\$0	K1	c
Greenland - North	1	10768	65442B-1	Dn%	\$32.00	13.1	NA	NA.	NA.	NA .	1.000	\$0	K1	c
Greenland - North	1	10768	83239-1	Dn%	\$33.00	13.2	NA.	NA.	NA	NA.	1,000	\$0	K1	C
Greenland - North	1	10768	83239A-1	Dn%	\$34.00	5.5	NA	NA.	NA.	NA.	1.000	\$0	K1	C
SH385, 20 MI S of I 70 N	1	10769	88600-1	Dn%	\$30.28	28.9	54	0.71	-0.55	98.1	1.055	\$22,425	H1	c
10 M N Cheyenne Wells	1	10790	88600-1	Dn%	\$38.00	3.0	6	0.90	-0.90	89.5	1.035	\$1,967	G1	- c
So Rockport- Wyo St Line		10/90	80699A	Dn%	\$28.85	3.0	6	0.54	-1.43	85.2	1.035	\$1,907	W2	c
							44	0.85	-0.74	93.3	1,028	\$8,653	W2	- c
Se Recipert-Wyo St Line	4	10857	80699B	Dn%	\$28.85	21.6						<u>`</u>		-
Sc Rockport- Wyo St Line	4	10857	80699C	Dn%	\$29.85	5.0	10	0.95	-0.08	98.5	1.040	\$2,988	W2	c
So Rockport- Wyo St Line	-4	10857	81942C	Dn%	\$23.50	2.0		NA .	NA	NA .	1.000	\$0	W2	
So Rockport- Wyo St Line	4	10857	81942a	Dn%	\$22.50	13.7		0.78	-1.10	87.6	1.003	\$443	W2	С
So Rockport- Wyo St Line	4	10857	81942b	Dn%	\$22.50	1.4	0	NA .	NA .	NA .	1.000	\$0	W2	С
Martin St (Longmont)- 1 25	4	10858	101896	Dn%	\$29.00	1.1		NA .	NA .	NA	1.000	\$ 0	B1	-c
Martin St (Longmont)- ! 25	4	10858	61496	Dn%	\$24,90	19.0	38	1.10	-0.29	92.7	1.023	\$5,488	Bt	
Martin St (Longmont)- I 25	4	10658	74544	Dn%	\$24.90	10.9	21	1.22	-0.71	84.4	0.982	(\$2,405)	B1	С
Martin St (Longmont)- I 25	4	10858	81470	Dn%	\$24.90	0.9	2	NA	NA	NA	1.000	\$0	B1	С
Martin St (Longmont)- I 25	4	10858	89309	Dn%	\$20.00	5.0	1	NA.	NA	NA	1.000	\$0	B1	сх
Martin St (Longmont)- I 25	4	10858	89309A	Dn%	\$20.00	1.2	D	NA.	NA	NA .	0.750	(\$3,000)	B1	СХ
Mach Pto-C Sps-Pueb	2	10944	82453-1	Dn%	\$ 32.31	6.5	13	0.56	-0.22	100.0	1.050	\$5,250	R1	c
Mach Ptc-C Sps-Pueb	2	10944	82454-1	Dri%	\$32.31	6.6	14	0.74	-0.22	97.9	1.050	\$5,334	R1	С
Mach Ptc-C Sps-Pueb	2	10944	82455-1	Dn%	\$28.38	22.3	48	0.77	-0.61	97.5	1,055	\$17,368	R1	С
Mach Ptc-C Sps-Pueb	2	10944	82455-1A	Dn%	\$28.38	0.7	NA	NA	NA	NA	0.750	(\$2,448)	R1	С
Mach Pto-C Sps-Pueb	2	10944	82456-1	Dn%	\$32.31	24	5	0.53	-0.36	93.6	1.030	\$1,169	R1	c
Mach Ptc-C Sps-Pueb	2	10944	82457-1	Dn%	\$32.31	6.3	13	0.86	-0.50	95.4	1.048	\$4,929	R1	С
Mach Ptc-C Sps-Pueb	2	10944	82457-1A	Dn%	\$3231	5.9	12	0.90	-0.59	98.3	1.050	\$4,785	R1	С
Mach Ptc-C Sps-Pueb	2	10944	82458-1	Dn%	\$28.38	0.6	2	NA	NA	NA	0.996	(\$34)	R1	С
Farmington Hili	5	10996	A80398	Dn%	\$24.50	17.4	35	0.77	-0.71	95.6	1,050	\$10,653	N1	С
Farmington Hill	5	10996	HING1	Dn%	\$25.00	0.5	1	NA	NA	NA	1.000	\$0	N1	G
Farmington Hill	- 5		HIIIG2-1	Dn%	\$25.00	7.8	16	1.17	-0.18	92.0	1.034	\$3,289	N1	G
Farmington Hilli			HIIIG2-2	Dn%	\$25.00	11.9	24	0.87	-0.85	93.2	1.037	\$5,479	N1	G
Rifle - North	3	11073	76410		\$27.18	28.5	58	1,05	-0.47	92.1	1.019	\$7,263	E1	СХ
Reg 6 Machine Patch			64257-1	Dn%	\$27.00	10.0	21	0.77	-0.80	93.5	1.039	\$5,229	W2	cx
Reg 6 Machine Patch	6		B4257-2	Dn%	\$27.00	10.7	21	0.90	D.17	95.1	1.048	\$6,882	W2	cx cx
Reg 6 Machine Patch	-6		64271-1	Dn%	\$29.00	4.0	5	0.78	-0.85	97.0	1.030	\$1,740	W2	cx
Reg 6 Machine Patch	-6	_	54271-2	Dn%	\$29.00	19.0	42	1.23	-0.55	89.8	1.002	\$623	W2	cx
SH 47, Troy Av E & W	2		35901-1	Dn%	\$29.00	37.9	65	1,23	-0.58	86.0	0.974	(\$14,038)	K2	<u> </u>
Buckingham - Raymer	4		39976	Dn%	\$18.23	9.7	0	NA 100	NA D.67	NA	1.000	\$0	W2	C .
Buckingham - Raymer	4_		9976R	Dn%	\$28.58	23.0	46	1.00	-0.67	90.6	1.009	\$2,805	W2	C
Lamar Area-MP	2		38600-1	Dn%	\$32.89	16.4	33	0.75	-0.55	97.6	1,050	\$13,486	H1	C
Hollyoke-Neb State Line	4	11319 (37452-1	Dn%	\$34.00	22.0	44	1.15	-0.77	85.1	0.968	(\$12,155)	W2	С

TABLE 2
HOT BITUMINOUS PAVEMENT QC/QA DETAILS & SUMMARY BY ELEMENT, PROJECT AND MIX DESIGN FOR 1996 CONSTRUCTION SEASON USING QPM 2 (95)

WILL I					00110							IN E (30)		_
PROJECT		SUBAC		ELE-				PRCES	MEAN	OUAL	PAY	Incent/		
LOCATION	INO.	NUMBR	DESIGN	MENT	\$/TON	1000	"D"	SD	-TC	LEVL	PACT	Disinc\$		HBP
			/PRCSS	E			e de la company	Gradation Is			CONTROLL		Code	
Hollyoke-Neb State Line	4	11319	87452a	Dn%	\$34.00	16.0	32	0.95	-0.71	91.2	1.025	\$6,786	W2	С
Hollycke-Neb State Line	4	11319	87452b	Dn%	\$34.00	4.5	9	0.60	-1.36	85.9	1.014	\$1,098	W2	С
Hollyoks-Neb State Line	4	11319	87453-1	Dn%	\$29.00	21.1	NA	NA	NA	NA	1.000	\$0	W2	С
Mach Pat/Pueblo Area	2	11359	82459-1	Dn%	\$31.25	13.3	27	0.77	-0.20	99.2	1.050	\$10,361	B2	С
C 470 - South	1	11369	83560-1	Dn%	\$28.50	25.5	51	0.79	-0.34	98.3	1.055	\$20,011	B1	SP3/4
Sheridan Lake-North	2	11374	88600-1	Dn%	\$27.75	22.6	48	0.62	-1.07	93.4	1.028	\$8,889	H1	С
Geogetown - East	1	11438	84415-1	Dn%	\$36.00	53.0	106	1,06	0.21	93.7	1.023	\$21,513	W2	SP3/4
Poncha Spgs-Coaldale	5	11499	61393-1	Dn%	\$23.84	13.1	NA	NA	NA	NA	1.000	\$0	A2	СХ
Poncha Spgs-Coaldale	5	11499	61393-1A	Dn%	\$23.84	2.0	NA	NA	NA	NA	0.750	(\$5,960)	A2	СХ
Poncha Spgs-Coaldale	5	11499	61393A-1	Dn%	\$23.84	1.5	NA	NA	NA	NA	1.000	\$0	A2	СХ
Poncha Spgs-Coaldale	5	11499	61393B	Dn%	\$23.84	33.6	64	1.09	-1.08	79.9	0.927	(\$29,050)	A2	cx
Wads. Blvd, 58th to 64th	6	90448	64257-1	Dn%	\$24.00	13,0	26	1.00	-1.22	78.0	0.938	(\$9,642)	W2	С
Wads. Blvd, 58th to 64th	6	90448	64257-1A	Dn%	\$24.00	1.0	2	NA	NA	NA	0.500	(\$6,000)	W2	С
Klowa - East	1	91052	66486-1	Dn%	\$27.27	9.3	19	1,21	-0.24	90.5	1.021	\$2,64 5	S1	¢
S Montrose - Co Line	3	91416	84776	Dn%	\$25.00	6.8	14	1.04	-0.21	95.3	1,048	\$4,069	U1	С
S Montrose - Co Line	3	91416	84776A	Dn%	\$25.00	11.8	24	1.00	-0.30	95.1	1.048	\$7,024	U1	С
Estes Park East & West	4	92303	82245-1	Dn%	\$32.50	4.6	10	0.51	-0.97	98.9	1.040	\$2,971	C2	С
Estes Park East & West	4	92303	82245-1A	Dn%	\$32.50	0.2	NA	NA	NA	NA	0.500	(\$1,893)	CZ	С
Estes Park East & West	4	92303	82246-1	Dn%	\$27.50	4.7	9	0.71	-0.56	99.2	1.040	\$2,599	C 2	С
Estes Park East & West	4	92303	82246A	Dn%	\$27.50	6.1	12	0.98	-0.80	89.2	1.028	\$2,369	C2	С
Parker Road	6	92319	R6018-1	Dn%	\$32.00	6.2	13	0.94	-1.08	83.8	0.993	(\$735)	K1	С
					\$28.59	829.6	1465	0.911	-0.562	91.943	1.0150	\$186,434		
DENSITY PERCENT TOTALS	& AVG (A	LL GRAD	NGS) 1996		\$28.59	829.6	1465	0.91	-0.56	91,94	1,0150	\$186,434		

DENSITY PERCENT TOTALS & AVG (ALL GRADINGS) 1996 DENSITY PERCENT TOTALS & AVG (ALL GRADINGS) 1995 Differences: 1996-1995

			Absolute	0.60			
(\$1.20)	516.0	840	-0.08	-0.18	0.247	-0.0020	\$101,568
\$29.79	313.6	625	0.99	-0.38	91.70	1.0171	\$84,866
\$28.59	829.6	1465	0.91	-0.56	91.94	1,0150	\$186,434

	AND MIX DESIGN FOR 1996 CONSTRUCTION SEASON USING QPM 2 (95)													
PROJECT LOCATION	NO.	SUBA NUMB		ELE-	BID \$/TON	TOMS 1000	TEST	PRCES	MEAN -TC	CUAL	PAY	Incent/ Disinc\$	Contr	HBP
DOCALLON	, and	, INCOME.	/PRCSS		φ; 10M	1000		Ornaletten A			CONTROLL		4	Grad
			-		GR/	DAT	ON							
Lena Guich	6	10304	64268-1	Grad	\$25.00	12.4	6	3.50	0.30	69.4	0.944	(\$3,460)	A1	С
SH 93 & Golden Gate C	6	10306	64268-1	Grad	\$27.00	10.0	5	0.89	2.40	100.0	1,030	\$1,620	A1	С
West of Granby W	3	10395	90880-1	Grad	\$27.31	24.0	12	0.94	1.20	97.4	1.050	\$6,554	C4	СХ
SH 257, US 34-Poudre	4	10595	81701A	Grad	\$27.60	9.4	5	2.30	-2.20	85.2	1,027	\$1,393	C2	C
Royal Gorge - East	2	10652	87163A-1	Grad	\$24.89	35.8	18	1.62	1.60	89.2	1.021	\$3,718	H1	С
6TH & Union	6	10679	64248A-1	Grad	\$29.53	4,9	3	1.73	-3.00	75.6	1.020	\$594	B1	С
6TH & Union	6	10679	64254C-1	Grad	\$29.53	22.6	12	1.44	-1.90	99.2	0.970	(\$4,037)	B1	
Greenland - North	1	10768	85442-1	Grad	\$32.00	16.6	9	3.06	0.10	92.0	1.035	\$3,726	K1	С
Greenland - North	1	10768	65442A-1	Grad	\$33.00	7.2	4	1.83	1.20	84.D	1.030	\$1,431	K1	С
Greenland - North	1	10768	65442B-1	Grad	\$32.00	13.1	7	3.24	1.90	83.0	1.012	\$982	K1	c
Greenland - North	1	10768	83239-1	Grad	\$33.00	13.2	7	7.00	-2.10	83.8	1.015	\$1,293	K1	c
Greenland - North	1	10768	83238A-1	Grad	\$34.00	5.5	3	1.15	-3.70	83.3	1.025	\$938	K1	_
SH385, 20 Mi S of I 70 N	<u> </u>	10769	88600-1	Grad	\$30.28	26.9	14	1.96	1.00	89.6	1.023	\$3,691	H1	÷
10 M N Cheyenne Wells	1	10790	88600-1	Grad	\$38,00	3,0	3	1.53	1.70	100.0	1.025	\$565	G1	-
So Rockport- Wyo St Line	4	10857	80699A	Grad	\$28.85	3.0	2	NA NA	NA NA	NA.	1.000	\$0	W2	c
	4	10857	80699B		\$28.85		11	2.42	0.50		1.040		WZ	- c
So Rockport- Wyo St Line		10657	80699C	Grad		21.6	3			97.5		\$4,982		
So Rockport- Wyo St Line	4			Grad	\$29.85	5.0		1.15	0.70	50.0	0.889	(\$3,294)	W2	С
So Rockport- Wyo St Line	4	10867	81942C	Grad	\$23.50	2.0	1 -	NA .	NA .	NA TO 1	1.000	\$0	W2	С
So Rockport- Wyo St Line	4	10857	81942a	Grad	\$22.50	13.7	7	1.13	-1.60	82.4	1,009	\$563	W2	
So Rockport- Wyo St Line	4	10857	81942b	Grad	\$22.50	1.4	1	NA	NA	NA	1.000	\$0	W2	C
Martin St (Longmont)- 1 25	4	10858	101896	Grad	\$29.00	1.1	1	NA	NA .	N/A	0.968	(\$203)	B1	С
Martin St (Longmont)- I 25	4	10858	61496	Grad	\$24.90	19.0	10	2.10	-0.40	92.3	1.039	\$3,720	B1	С
Martin St (Longmont)- 1 25	4	10858	74544	Grad	\$24,90	10.9	5	1.30	-2.20	66.1	0.939	(\$3,295)	B1	С
Martin St (Longmont)- I 25	4	10858	81470	Grad	\$24.90	0.9	1	NA .	>2V	NA .	0.500	(\$2,219)	B1	С
Martin St (Longmont)- 1 25	4	10858	69309	Grad	\$20.00	5.0	3	1.00	0.00	100.0	1.025	\$500	B1	сх
Martin St (Longmont)- I 25	4	10858	89309A	Grad	\$20.00	1.2	0	NA	NA	NA .	0.750	(\$1,200)	B1	сх
Mach Pto-C Spe-Pueb	2	10944	82453-1	Grad	\$32.31	6.5	4	1.71	0.30	96.8	1.030	\$1,260	R1	C
Mach Ptc-C Sps-Pueb	2	10944	82454-1	Grad	\$32.31	5.6	4	0.50	-0.20	100.0	1.030	\$1,280	R1	С
Mach Ptc-C Sps-Pueb	2	10944	82455-1	Grad	\$28.38	22.3	12	1.90	1.20	98.4	1.050	\$ 6,316	R1	С
Mach Ptc-C Sps-Pueb	2	10944	82455-1A	Grad	\$28.38	0.7	NA	NA	NA	NA .	0.750	(\$979)	R1	С
Mach Ptc-C Sps-Pueb	2	10944	82456-1	Grad	\$32 .31	2.4	2	NA	NA	NA	1.000	\$0	R1	С
Mach Ptc-C Sps-Pueb	2	10944	82457-1	Grad	\$32.31	6.3	4	3.80	0.00	75.2	1.002	\$77	R1	С
Mach Pto-C Spa-Pueb	2	10944	82457-1A	Grad	\$32.31	5.9	3	2.00	-1.00	100.0	1.025	\$957	R1	С
Vach Ptc-C Sps-Pueb	2	10944	82458-1	Grad	\$28.38	0.6	1	NA.	NA	NA	1.000	\$0	R1	С
Farmington Hill	5	10996	A80398	Grad	\$24.50	17.4	9	2.40	0.30	87.3	1.020	\$1,715	N1	C
Farmington Hill	5	10996	HING1	Grad	\$25.00	0.5	1	NA	0.00	NA.	1.000	\$0	N1	G
Farmington HIU	5	10996	HiliG2-1	Gred	\$25.00	7.8	4	1.50	0.20	96.2	1.030	\$1,169	N1	G
Farmington Hill	5	10996	HIIG2-2	Grad	\$25.00	11.9	6	1.26	-1.50	85.6	1.021	\$1,282	N1	G
Rifle - North	3	11073	76410	Grad	\$27,18	28.5	15	1.10	-1.50	99.7	1.050	\$7,759	E1	сх
Reg 6 Machine Patch	6	11124	64257-1	Grad	\$27.00	10.0	5	1.79	-2.20	88.1	1.013	\$682	W2	СХ
Reg 6 Machine Patch	6	11124	64257-2	Grad	\$27.00	10.7	6	1.75	-0.70	100.0	1.035	\$2,021	W2	СХ
Reg 6 Machine Patch	6	11124	64271-1	Grad	\$29.00	4.0	2	NA.	0.00	NA	1.000	\$0	W2	cx
leg 6 Machine Patch	6	11124	64271-2	Grad	\$29.00	19.0	10	1.34	-1.30	88.7	1.026	\$2,877	W2	сх
H 47, Troy Av E & W	2			Grad	\$29.00	37.9	19	2.73	_	77.8	9.937	(\$13,965)	K2	С
luckingham - Raymer	4			Grad	\$18.23	9.7	5			84.4	1.024	\$847	W2	c
uckingham - Raymer	4			Grad	\$28.58	23.0	12	2.60		86.0	1.005	\$639	W2	
lollyoke-Neb State Line	4			Grad	\$34.00	22.0	11			98.3	1.040	\$5,984	W2	<u>-</u>
ioliyoke-Neb State Line	4			Grad	\$34.00	16.0	8			100.0	1.040	\$4,352	W2	c
		, 10-14							7.00			₩-,JAIL		

TABLE 2
HOT BITUMINOUS PAVEMENT QC/QA DETAILS & SUMMARY BY ELEMENT, PROJECT
AND MIX DESIGN FOR 1996 CONSTRUCTION SEASON USING QPM 2 (95)

PROJECT	REG	SUBAC	MIX	ELR-	BID	TOMS	TEST	PRCES	MEAN	QUAL	PAY	Incent/		
LOCATION	NO.	NUMBE	8	MENT	\$/TON	1000	"n"	SD	-TC	LEVL	FACT	Disinca	Contr	HBP
			/PRCSS					Greatettee Is	*	Gradulion is	CONTROLL	VG Sieve	Code	Grad
Hollycke-Neb State Line	4	11319	87452b	Grad	\$34.00	4.5	3	0.60	-2.30	100.0	1.025	\$771	W2	С
Hollyoke-Neb State Line	4	11319	87453-1	Grad	\$29.00	21.1	11	1.90	-0.50	99.7	1.040	\$4,895	W2	С
Lamar Area-MP	2	11358	88600-1	Grad	\$32.89	18.4	9	3.03	1.80	85.4	1,012	\$1,298	H1	С
Mach Pat/Pueblo Area	2	11359	82459-1	Grad	\$31.25	13.3	7	1.27	1.60	93.3	1.035	\$2,901	B2	С
C 470 - South	1	11389	83560-1	Grad	\$28.50	25.5	13	3.85	2.80	69.6	0.901	(\$14,430)	B1	SP3/4
Sheridan Lake-North	2	11374	88800-1	Grad	\$27.75	22.6	12	1.30	2.70	93.1	1.039	\$4,873	H1	С
Geogetown - East	1	11438	84415-1	Grad	\$36.00	53.0	27	1.28	-1.20	94.4	1.044	\$16,676	W2	SP3/4
Poncha Spgs-Coaldale	5	11499	61393-1	Grad	\$23.84	13.1	7	1.99	3.40	77.5	0.987	(\$792)	A2	сх
Poncha Spgs-Coaldale	5	11499	61393-1A	Grad	\$23.84	2.0	1	>2V	0.00	NA	0.750	(\$2,384)	A2	сх
Poncha Spgs-Coaldale	5	11499	61393A-1	Grad	\$23.84	1,5	1	NA.	0.00	NA	1.000	\$0	A2	СХ
Poncha Spgs-Cosidale	5	11499	61393B	Grad	\$23.84	33.6	17	1.74	1.80	84.8	0.998	(\$320)	A2	СХ
Wads. Blvd, 58th to 64th	6	90448	64257-1	Grad	\$24.00	13.0	7	1.95	1.10	91.1	1.035	\$2,184	W2	С
Wads. Blvd, 58th to 64th	6	90448	64257-1A	Grad	\$24.00	1.0	NA	NA	NA	NA	0.500	(\$2,400)	W2	C
Klowa - East	1	91052	86486-1	Grad	\$27.27	9.3	5	2.28	0.80	94.4	1.030	\$1,520	81	С
S Montrose - Co Line	3	91416	84776	Grad	\$25.00	6.8	4	1.30	-1.50	97.5	1.030	\$1,021	U1	С
S Montrose - Co Line	3	91416	84776A	Grad	\$25.00	11.8	6	1.40	-1.70	98.4	1.035	\$2,056	U1	С
Estes Park East & West	4	92303	82245-1	Grad	\$32.50	4.6	2	NA	-5.50	NA	0.984	(\$473)	C2	С
Estes Park East & West	4	92303	82245-1A	Grad	\$32.50	0.2	NA	NA	NA	NA	0.500	(\$757)	Ç2	С
Estes Park East & West	4	92303	82246-1	Grad	\$27.50	4.7	2	NA	-3.50	NA.	1,000	\$0	C2	С
Estes Park East & West	4	92303	82246A	Grad	\$27.50	6.1	4	0.00	-5.00	88.7	1.030	\$1,005	C2	С
Parker Road	6	92319	R6018-1	Grad	\$32.00	6.2	4	2.80	-2.20	83.3	1.030	\$1,186	K1	С
					\$28.59	829.6	438	1.984	0.146	89.593	1.0119	\$61,663		

GRADATION TOTALS & AVERAGES (ALL GRADINGS) 1996

GRADATION TOTALS & AVERAGES (ALL GRADINGS) 1996

Differences: 1996-1995

\$28.59	829.6	438	1.98	0.16	89.59	1.0119	\$61,863	
\$30.36	327.9	181	2.78	0.56	85.13	0,9964	(\$19,106)	
(\$1.77)	501.8	247	-0.78	-0.40	4,48	0.0215	\$80,769	
			Absolute	1.53				

PROJECT		SUBAC		BLE-	-			PRCES		QUAL	PAY	Incent/		
LOCATION	NO.	NUMBE			\$/TON		"IL"	SD	-TC	LEVL		Disinc	Contr	HBP
			/PRCSS					Gradutice is	80	Gradation is	CONTROLLI	WG Sleve	Code	Grad
					COMP									
Lena Guich	6	10304	64268-1	ITEM	\$25.00	12.4		NA	NA	92.7	1.029	\$8,960	A1	С
SH 93 & Golden Gate C	6	10306	64268-1	пем	\$27.00	10.0	NA	NA.	NA	93.0	1.032	\$8,782	A1	С
West of Granby W	3	10395	90860-1	ШЕМ	\$27.31	24.0	NA	NA	NA .	92.9	1.027	\$17,884	C4	СХ
SH 257, US 34-Poudre	4	10595	61701A	ITEM	\$27.60	9.4	NA	NA	NA	88.5	1.021	\$5,416	C2	С
Royal Gorge - East	2	10652	87163A-1	ITEM	\$24.89	35.8	NA	NA	NA	91.9	1.027	\$23,898	H1	С
6TH & Union	6	10679	64248A-1	ITEM	\$29.53	4.9	NA	NA	NA	93.7	1.033	\$4,828	Bf	С
6TH & Union	6	10579	64254C-1	ITEM	\$29 .53	22.6	NA.	NA	NA	88.8	0.995	(\$2,408)	Bt	С
Greenland - North	1	10768	65442-1	MET	\$32.00	16.6	NA	NA	NA	86.1	0.999	(\$672)	K1	С
Greenland - North	1	10768	65442A-1	ITEM	\$33.00	7.2	NA	NA	NA.	81.0	1.000	299	K1	С
Greenland - North	1	10768	65442B-1	ITEM	\$32.00	13.1	NA.	NA .	NA.	84.4	1.003	\$1,101	K 1	С
Greenland - North	1	10768	83239-1	ITEM	\$33.00	13.2	NA.	NA	NA.	87.3	1.010	\$4,270	K1	С
Greenland - North	1	10788	83239A-1	ITEM	\$34.00	5.5	NA.	NA.	NA	71.5	0.977	(\$4,288)	K1	С
SH385, 20 MI S of 170 N	1	10769	88600-1	пем	\$30.28	26.9	NA.	NA.	NA.	96.8	1,047	\$38,347	H1	С
10 M N Cheyenne Wells	1	10790	88600-1	пем	\$38.00	3.0	NA NA	NA.	NA.	94.8	1.030	\$3,381	G1	С
So Rockport- Wyo St Line	4	10857	80699A	ITEM	\$28.85	3.0	NA	NA .	NA	90.8	1.018	\$1,502	W2	С
So Rockport- Wyo St Line	4	10857	80699B	ITEM	\$28.85	21.6	NA	NA	NA	99.0	1.037	\$22,977	W2	С
So Rockpart- Wyo St Line	4	10857	80699C	ITEM	\$29.85	5.0	NA	NA .	NA .	80.0	1,007	\$1,009	W2	<u> </u>
So Rockport- Wyo St Line	4	10857	81942C	ITEM	\$23.50	2.0	NA	NA .	NA	NA	1.000	20	W2	С
So Rockport- Wyo St Line	4	10857	81942a	ПЕМ	\$22.50	13.7	NA	NA	NA	91.3	1.018	\$5,626	W2	C
So Rockport- Wyo St Line	4	10857	81942b	ITEM	\$22.50	1.4	NA	NA	NA	NA	1.000	\$0	W2	С
Martin St (Longmont)- I 25	4	10858	101896	ITEM	\$29.00	1.1	NA	NA	NA	NA	0.994	(\$203)	B1	С
Martin St (Longmont)- 1 25	4	10858	61496	ITEM	\$24.90	19.0	NA.	NA	NA	88.0	1.016	\$7,406	B1	c
Martin St (Longmont)- 1 25	4	10858	74544	ITEM	\$24,90	10.9	NA.	NA	NA	78.3	0.984	(\$4,353)	B1	c
Martin St (Longmont)- I 25	4	10858	81470	ITEM	\$24.90	0.9	NA	NA	NA	NA	0.900	(\$2,219)	B1	С
Martin St (Longmont)- I 25	4	10858	89309	ITEM	\$20.00	5.0	NA	NA	NA	78.6	0.984	(\$1,624)	Bí	СХ
Martin St (Longmont)- I 25	4	10658	89309A	ITEM	\$20.00	1.2	NA.	NA.	NA .	0.0	0.750	(\$8,000)	B1	СX
Mach Pto-C Sps-Pueb	2	10944	82453-1	ITEM	\$32.31	6.5	NA.	NA.	NA	91.6	1.022	\$4,602	R1	╗
Mach Pto-C Spe-Pueb	2	10944	82454-1	ITEM	\$32.31	6.6	NA	NA.	NA.	96.5	1.042	\$8,855	R1	c
Mach Ptc-C Sps-Pueb	2			ПЕМ	\$28.38	22.3	NA NA	NA.	NA NA	97.7	1.053	\$33,157	R1	
Mach Ptc-C Spe-Pueb	2			TEM	\$28.38	0.7	NA NA	NA.	NA NA	NA NA	0.750	(\$4,896)	R1	•
<u> </u>							NA NA	NA NA	NA NA					c
Mach Pto-C Sps-Pueb	2			TEM	\$32.31	2.4				90.9	1.023	\$1,754	R1	
Mach Ptc-C Sps-Pueb	2			ITEM	\$32.31	6.3	NA	NA .	NA	89.6	1.035	\$7,159	R1	C
Mach Pto-C Spe-Pueb	2			TEM	\$32.31	5.9	NA	NA .	NA	99.2	1.041	\$7,752	R1	С
Mach Ptc-C Sps-Pueb	2	10944	52458-1 i	TEM	\$28.38	0.6	NA .	NA	NA .	NA	0,998	(\$34)	R1	C
Farmington Hill	5	10996	480398 I	TEM	\$24.50	17.4	NA	NA	NA	89.8	1.023	\$9,943	N1	С
Farmington Hill	6	10996	HUG1 I	TEM	\$25.00	0.5	NA	NA.	NA	0.0	1.000	\$0	N1	G
Farmington Hill	5	10996 I	-181G2-1 I	TEM	\$25.00	7.8	NA	NA	NA	91.0	1.026	\$4,985	N1	G
Farmington Hill	5	10996 I	181G2-2	TEM	\$25.00	11.9	NA	NA .	NA	85.8	1.002	\$609	N1	G
Rifle - North	3	11073 7	76410 F	TEM	\$27.18	28.5	NA	NA	NA	95.8	1.034	\$26,660	E1	СХ
Reg 6 Machine Patch	6	11124 6	64257-1 F	TEM	\$27.00	10.0	NA.	NA	NA	91.4	1.033	\$8,832	W2	сх
Reg 6 Machine Patch	6	11124 6	4257-2 F	TEM	\$27.00	10.7	NA	NA	NA	95.3	1.043	\$12,367	W2	сх
Reg 6 Machine Patch	6	11124 6	H271-1 [TEM	\$29.00	4.0	NA	NA.	NA	98.1	1.023	\$2,610	W2	СХ
Reg 6 Machine Patch	6	11124 6	4271-2 Г	TEM	\$29.00	19.0	NA	NA .	NA NA	91.7	1.021		W2	сх
 SH 47, Troy Av E & W				TEM	\$29.00	37.9	NA .	NA		83.7	0.962	(\$41,898)	K2	C
Buckingham - Raymer			_	TEM	\$18.23	9.7	NA NA	NA NA		92.8	1.017		W2	c
Buckingham - Raymer				rem	\$28.58	23.0	NA NA	NA NA		91.7	1.020		W2	c
														_
tollyoke-Neb State Line				TEM .	\$34.00	22.0	NA NA	NA .		91.2	1.007		W2	<u>c</u>
Hollyoke-Neb State Line	4	11319 8	7452а П	TEM .	\$34.00	16.0	NA .	NA	NA	95.1	1.035	\$19,298	W2	c

AND WIN DESIGN FOR					CONTO						10 41	M & (30)		
Project	1	SUBAC		ELE-		TONS			MEAN	QUAL	PAY	Incent/)
LOCATION	NO.	NUMBR	4	MENT	\$/TON	1000	"2"	SD	-TC	LEVL	FACT	Disinc\$	1	HBP
Sweet Control			/PRCSS					Gradation Is	#	Gredation A	CONTROLL	NG Slove	Code	Grad
Hollyoke-Neb State Line	4	11319	87452b	ITEM	\$34.00	4.5	NA	NA	NA	92.5	1.021	\$3,257	W2	С
Hollyoks-Neb State Line	4	11319	87453-1	ITEM	\$29.00	21,1	NA	NA	NA	99.0	1.023	\$14,073	W2	С
Lamar Area-MP	2	11358	88600-1	ITEM	\$32.89	16.4	NA	NA	NA	95.4	1.042	\$22,875	H1	С
Mach Pat/Pueblo Area	2	11350	82459-1	ITEM	\$31.25	13.3	NA	NA	NA	96.3	1.044	\$18,275	B 2	С
C 470 - South	1	11389	83560-1	ITEM	\$28.50	25.5	NA	NA	NA	78.6	0.933	(\$48,993)	B1	SP3/4
Sheridan Lake-North	2	11374	88600-1	ПЕМ	\$27.75	22.6	NA	NA	NA	95.3	1.037	\$23,181	H1	С
Geogetown - East	1	11438	84415-1	ПЕМ	\$36.00	53.0	NA	NA	NA	94.9	1.037	\$69,671	W2	SP3/4
Poncha Spgs-Coaldale	5	11499	61393-1	ITEM	\$23.84	13,1	NA.	NA	NA	76.6	0.962	(\$5,889)	A2	CX
Poncha Spgs-Coaldele	5	11499	61393-1A	ПЕМ	\$23,84	2.0	NA	NA	NA	NA	0.750	(\$11,920)	A2	СХ
Poncha Spgs-Coaldale	5	11499	61393A-1	ПЕМ	\$23.84	1.5	NA	NA	NA	NA	1.000	\$0	A2	СХ
Poncha Spgs-Coaldale	5	11499	613938	ITEM	\$23.84	33.6	NA	NA	NA	81.4	0.952	(\$38,489)	A2	CΧ
Wads. Blvd, 58th to 64th	В	90448	64257-1	ITEM	\$24.00	13.0	NA	NA	NA	80.0	0.960	(\$12,606)	W2	0
Wads. Blvd, 58th to 64th	В	90448	64257-1A	ITEM	\$24.00	1.0	NA	NA	NA	NA	0.500	(\$12,000)	W2	С
Klowa - East	1	91052	66486-1	ITEM	\$27.27	9.3	NA	NA.	NA	93.7	1.028	\$7,204	S 1	O
S Montrose - Co Line	3	91416	84776	ITEM	\$25.00	6.8	NA	NA	NA	86.6	1.018	\$3,050	U1	С
S Montrose - Co Line	3	91416	84776A	ITEM	\$25.00	11.8	NA	NA	NA	83.8	1.036	\$10,629	U1	С
Estes Park East & West	4	92303	82245-1	ITEM	\$32.50	4.6	NA.	NA	NA	99.3	1.026	\$3,834	C2	С
Estes Park East & West	4	92303	82245-1A	ITEM	\$32.50	0.2	NA	NA	NA	NA	0.500	(\$3,786)	C2	С
Estes Park East & West	4	92303	82246-1	ПЕМ	\$27.50	4.7	NA	NA	NA	89.6	1.014	\$1,784	C2	С
Estes Park East & West	4	92303	82246A	ПЕМ	\$27.50	6.1	NA	NA	NA	92.3	1.031	\$5,132	C2	С
Parker Road	6	92319	R6018-1	ITEM	\$32.00	6.2	NA	NA	NA	86.4	1,013	\$2,526	K 1	С
HBP ITEM TOTALS & AVERAG	ES, ALL	GRADING	SS (1996)		\$28.59	829.6	NA	NA	NA	90.829	1.0122	\$320,336		
HBP ITEM TOTALS & AVERAG	ES, ALL	GRADING	iS (1995)		\$30.36	327.9	NA	NA	NA	88.472	1.0062	\$67,203		
3Werencee: 1006-1005				ſ	(84.77)	K01 0	NA	NΔ	NA	1 166	0.0000	2252 122		

(\$1.77) 501.8 NA NA NA 1.366 0.0060 \$263,133 Differences: 1996-1995

TABLE 3
HOT BITUMINOUS PAVEMENT QC/QA DETAILS & SUMMARY BY PROJECT
(PROCESS AVGS FOR ITEM) FOR 1996 CONSTRUCTION SEASON USING QPM 2 (95)

(PRUCESS AT										
PROJECT	REG/	SUBAC	MIX	ELE-	BID	TONS	QUALITY	PAY	Incent/	Contr
LOCATION	UNIT	NUMBR	Design	MRNT!	\$/TON	1000	LEVEL	FACT	Disinc\$	Code
			/PRCSS					IS CONTROL	JNG Sieve	
		LIS	TED BY	SUBACC	OUNT N	UMBEF	₹			
Lena Gulch	6	10304	PROJECT	ITEM	\$25.00	12.4	92.7	1.029	\$8,960	A1
SH 93 & Golden Gate C	6	10306	PROJECT	ITEM	\$27.00	10.0	93.0	1.032	\$8,762	A1
West of Granby W	3	10395	PROJECT	ITEM	\$27.31	24.0	92.9	1.027	\$17,884	C4
SH 257, US 34-Poudre	4	10595	PROJECT	ITEM	\$27.60	9.4	88.5	1.021	\$5,416	C2
Royal Gorge - East	2	10652	PROJECT	ITEM	\$24.89	35.8	91.9	1.027	\$23,898	H1
6TH & Union	6	10679	PROJECT	ITEM	\$29.53	27.6	92.9	1.003	\$2,418	B1
Greenland - North	1	10768	PROJECT	ITEM	\$32.56	55.8	83.9	1.000	\$510	K1
SH385, 20 Mi S of I 70 N	1	10769	PROJECT	ITEM	\$30.28	26.9	96.8	1.047	\$38,347	H1
10 M N Cheyenne Wells	1	10790	PROJECT	ITEM	\$38.00	3.0	94.8	1.030	\$3,381	G1
So Rockport- Wyo St Line	4	10750								
• •		10858	PROJECT	ITEM	\$26.67 \$34.33	46.6	93.8	1.024	\$31,114	W2
Martin St (Longmont)- I 25 Mach Ptc-C Sps-Pueb	4	10944	PROJECT	ITEM	\$24.22	38.0	83.7	0.991	(\$6,992)	B1
•	2		PROJECT	ITEM	\$30.51	51.3	95.5	1.038	\$58,350 \$45,535	R1
Farmington Hill	5	10996	PROJECT	ITEM	\$24.77	37.6	88.8	1.017	\$15,538	N1
Rifle - North	3	11073	PROJECT	ITEM	\$27.18	28.5	95.8	1.034	\$26,660	E1
Reg 6 Machine Patch	6	11124	PROJECT	ITEM	\$29.00	19.0	91.7	1.021	\$11,775	W2
Reg 6 Machine Patch	6	11124	PROJECT	ITEM	\$27.32	24.7	94.2	1.035	\$23,809	W2
SH 47, Troy Av E & W	2	11169	PROJECT	ITEM	\$29.00	37.9	83.7	0.962	(\$41,898)	K2
Buckingham - Raymer	4	11318	PROJECT	ITEM	\$25.51	32.6	92.0	1.019	\$16,248	W2
Hollyoke-Neb State Line	4	11319	PROJECT	ITEM	\$32.34	63.6	94.9	1.020	\$41,678	W2
Lamar Area-MP	2	11358	PROJECT	ITEM	\$32.89	16.4	95.4	1.042	\$22,875	H1
Mach Pat/Pueblo Area	2	11359	PROJECT	ITEM	\$31.25	13.3	96.3	1.044	\$18,275	B2
C 470 - South	1	11369	PROJECT	ITEM	\$28.50	25.5	78.6	0.933	(\$48,993)	B1
Sheridan Lake-North	2	11374	PROJECT	ITEM	\$27.75	22.6	95.3	1.037	\$23,181	H1
Geogetown - East	1	11438	PROJECT	ITEM	\$36.00	53.0	94.9	1.037	\$69,671	W2
Poncha Spgs-Coaldale	5	11499	PROJECT	ITEM	\$23.84	50.2	80.0	0.948	(\$56,297)	A2
Wads. Blvd, 58th to 64th	6	90448	PROJECT	ITEM	\$24.00	14.0	80.0	0.927	(\$24,606)	W2
Kiowa - East	1	91052	PROJECT	ITEM	\$27.27	9.3	93.7	1.028	\$7,204	S1
S Montrose - Co Line	3	91416	PROJECT	ITEM	\$25.00	18.6	91.2	1.029	\$13,679	U1
Estes Park East & West	4	92303	PROJECT	ITEM	\$29.04	15.6	93.6	1.016	\$6,964	C2
Parker Road	6	92319	PROJECT	ITEM	\$32.00	6.2	86.4	1.013	\$2,526	K1
HBP ITEM TOTALS & AVERAG	ES, ALL	GRADING	3		\$28.59	829.6	90.829	1.0122	\$320,336	
				TABLE 3	A					
			SORTED	BY QUA	LITY LEV	ÆL.				
C 470 - South	1	11369	PROJECT	ITEM	\$28.50	25.5	78.6	0.933	(\$48,993)	B1
Wads. Blvd, 58th to 64th	6	90448	PROJECT	ITEM	\$24.00	14.0	80.0	0.927	(\$24,606)	W2
Poncha Spgs-Coaldale	5	11499	PROJECT	ITEM	\$23.84	50.2	80.0	0.948	(\$56,297)	A2
Martin St (Longmont)- I 25	4	10858	PROJECT	ITEM	\$24.22	38.0	83.7	0.991	(\$6,992)	B1
SH 47, Troy Av E & W	2	11169	PROJECT	ITEM	\$29.00	37.9	83.7	0.962	(\$41,898)	K2
Greenland - North	1	10768	PROJECT	ITEM	\$32.56	55.8	83.9	1.000	\$510	K1
Parker Road	6	92319	PROJECT	ITEM	\$32.00	6.2	86.4	1.013	\$2,526	K1
SH 257, US 34-Poudre	4	10595	PROJECT	ITEM	\$27.60	9.4	88.5	1.021	\$5,416	C2
Farmington Hill	5	10996								
-			PROJECT	ITEM	\$24.77	37.6	88.8	1.017	\$15,538 \$43,670	N1
S Montrose - Co Line	3		PROJECT	ITEM	\$25.00	18.6	91.2	1.029	\$13,679	U1
Reg 6 Machine Patch	6		PROJECT	ITEM	\$29.00	19.0	91.7	1.021	\$11,775	W2
Royal Gorge - East	2		PROJECT	ITEM	\$24.89	35.8	91.9	1.027	\$23,898	H1
Buckingham - Raymer								1.019	\$16,248	W2
Lena Gulch	4		PROJECT	ITEM	\$25.51	32.6	92.0			
West of Granby W	6	10304	PROJECT	ITEM	\$25.00	12.4	92.7	1.029	\$8,960	A1
•	6 3	10304 10395	PROJECT PROJECT	ITEM ITEM	\$25.00 \$27.31	12.4 24.0	92.7 92.9	1.029 1.027	\$8,960 \$17,884	C4
6TH & Union	6 3 6	10304 10395 10679	PROJECT PROJECT PROJECT	ITEM ITEM ITEM	\$25.00 \$27.31 \$29.53	12.4 24.0 27.6	92.7 92.9 92.9	1.029 1.027 1.003	\$8,960 \$17,884 \$2,418	C4 B1
6TH & Union SH 93 & Golden Gate C	6 3 6 6	10304 10395 10679 10306	PROJECT PROJECT PROJECT PROJECT	ITEM ITEM ITEM ITEM	\$25.00 \$27.31 \$29.53 \$27.00	12.4 24.0 27.6 10.0	92.7 92.9 92.9 93.0	1.029 1.027 1.003 1.032	\$8,960 \$17,884	C4 B1 A1
6TH & Union SH 93 & Golden Gate C Estes Park East & West	6 3 6 6 4	10304 10395 10679 10306	PROJECT PROJECT PROJECT	ITEM ITEM ITEM	\$25.00 \$27.31 \$29.53	12.4 24.0 27.6	92.7 92.9 92.9	1.029 1.027 1.003	\$8,960 \$17,884 \$2,418	C4 B1
6TH & Union SH 93 & Golden Gate C	6 3 6 6	10304 10395 10679 10306 92303	PROJECT PROJECT PROJECT PROJECT	ITEM ITEM ITEM ITEM	\$25.00 \$27.31 \$29.53 \$27.00	12.4 24.0 27.6 10.0	92.7 92.9 92.9 93.0	1.029 1.027 1.003 1.032	\$8,960 \$17,884 \$2,418 \$8,762	C4 B1 A1
6TH & Union SH 93 & Golden Gate C Estes Park East & West Kiowa - East So Rockport- Wyo St Line	6 3 6 6 4 4	10304 10395 10679 10306 92303 91052	PROJECT PROJECT PROJECT PROJECT PROJECT	ITEM ITEM ITEM ITEM ITEM	\$25.00 \$27.31 \$29.53 \$27.00 \$29.04	12.4 24.0 27.6 10.0 15.6	92.7 92.9 92.9 93.0 93.6	1.029 1.027 1.003 1.032 1.016	\$8,960 \$17,884 \$2,418 \$8,762 \$6,964	C4 B1 A1 C2
6TH & Union SH 93 & Golden Gate C Estes Park East & West Kiowa - East	6 3 6 6 4 5	10304 10395 10679 10306 92303 91052 10857	PROJECT PROJECT PROJECT PROJECT PROJECT PROJECT	ITEM ITEM ITEM ITEM ITEM ITEM	\$25.00 \$27.31 \$29.53 \$27.00 \$29.04 \$27.27	12.4 24.0 27.6 10.0 15.6 9.3	92.7 92.9 92.9 93.0 93.6 93.7	1.029 1.027 1.003 1.032 1.016 1.028	\$8,960 \$17,884 \$2,418 \$8,762 \$6,964 \$7,204	C4 B1 A1 C2 S1
6TH & Union SH 93 & Golden Gate C Estes Park East & West Kiowa - East So Rockport- Wyo St Line	6 3 6 6 4 4	10304 10395 10679 10306 92303 91052 10857 11124	PROJECT PROJECT PROJECT PROJECT PROJECT PROJECT PROJECT PROJECT	ITEM ITEM ITEM ITEM ITEM ITEM ITEM	\$25.00 \$27.31 \$29.53 \$27.00 \$29.04 \$27.27 \$26.67	12.4 24.0 27.6 10.0 15.6 9.3 46.6	92.7 92.9 92.9 93.0 93.6 93.7 93.8	1.029 1.027 1.003 1.032 1.016 1.028 1.024	\$8,960 \$17,884 \$2,418 \$8,762 \$6,964 \$7,204 \$31,114	C4 B1 A1 C2 S1 W2
6TH & Union SH 93 & Golden Gate C Estes Park East & West Kiowa - East So Rockport- Wyo St Line Reg 6 Machine Patch	6 3 6 6 4 4 6	10304 10395 10679 10306 92303 91052 10857 11124 10790	PROJECT PROJECT PROJECT PROJECT PROJECT PROJECT PROJECT PROJECT	ITEM ITEM ITEM ITEM ITEM ITEM ITEM ITEM	\$25.00 \$27.31 \$29.53 \$27.00 \$29.04 \$27.27 \$26.67 \$27.32	12.4 24.0 27.6 10.0 15.6 9.3 46.6 24.7	92.7 92.9 92.9 93.0 93.6 93.7 93.8 94.2	1.029 1.027 1.003 1.032 1.016 1.028 1.024 1.035	\$8,960 \$17,884 \$2,418 \$8,762 \$6,964 \$7,204 \$31,114 \$23,809	C4 B1 A1 C2 S1 W2 V2
6TH & Union SH 93 & Golden Gate C Estes Park East & West Kiowa - East So Rockport- Wyo St Line Reg 6 Machine Patch 10 M N Cheyenne Wells	6 3 6 6 4 4 6	10304 10395 10679 10306 92303 91052 10857 11124 10790 11319	PROJECT	ITEM ITEM ITEM ITEM ITEM ITEM ITEM ITEM	\$25.00 \$27.31 \$29.53 \$27.00 \$29.04 \$27.27 \$26.67 \$27.32 \$38.00	12.4 24.0 27.6 10.0 15.6 9.3 46.6 24.7 3.0	92.7 92.9 92.9 93.0 93.6 93.7 93.8 94.2 94.8	1.029 1.027 1.003 1.032 1.016 1.028 1.024 1.035 1.030	\$8,960 \$17,884 \$2,418 \$8,762 \$6,964 \$7,204 \$31,114 \$23,809 \$3,381	C4 B1 A1 C2 S1 W2 VV2 G1
6TH & Union SH 93 & Golden Gate C Estes Park East & West Kiowa - East So Rockport- Wyo St Line Reg 6 Machine Patch 10 M N Cheyenne Wells Hollyoke-Neb State Line	6 3 6 6 4 4 6 1 4	10304 10395 10679 10306 92303 91052 10857 11124 10790 11319 11438	PROJECT	ITEM ITEM ITEM ITEM ITEM ITEM ITEM ITEM	\$25.00 \$27.31 \$29.53 \$27.00 \$29.04 \$27.27 \$26.67 \$27.32 \$38.00 \$32.34	12.4 24.0 27.6 10.0 15.6 9.3 46.6 24.7 3.0 63.6	92.7 92.9 92.9 93.0 93.6 93.7 93.8 94.2 94.8 94.9	1.029 1.027 1.003 1.032 1.016 1.028 1.024 1.035 1.030 1.020	\$8,960 \$17,884 \$2,418 \$8,762 \$6,964 \$7,204 \$31,114 \$23,809 \$3,381 \$41,678	C4 B1 A1 C2 S1 W2 W2 G1 W2
6TH & Union SH 93 & Golden Gate C Estes Park East & West Kiowa - East So Rockport- Wyo St Line Reg 6 Machine Patch 10 M N Cheyenne Wells Hollyoke-Neb State Line Geogetown - East	6 3 6 6 4 4 6 1 4	10304 10395 10679 10306 92303 91052 10857 11124 10790 11319 11438 11374	PROJECT	ITEM ITEM ITEM ITEM ITEM ITEM ITEM ITEM	\$25.00 \$27.31 \$29.53 \$27.00 \$29.04 \$27.27 \$26.67 \$27.32 \$38.00 \$32.34 \$36.00 \$27.75	12.4 24.0 27.6 10.0 15.6 9.3 46.6 24.7 3.0 63.6 53.0	92.7 92.9 92.9 93.0 93.6 93.7 93.8 94.2 94.8 94.9	1.029 1.027 1.003 1.032 1.016 1.028 1.024 1.035 1.030 1.020 1.037	\$8,960 \$17,884 \$2,418 \$8,762 \$6,964 \$7,204 \$31,114 \$23,809 \$3,381 \$41,678 \$69,671 \$23,181	C4 B1 A1 C2 S1 W2 W2 W2 G1 W2 W2 H1
6TH & Union SH 93 & Golden Gate C Estes Park East & West Kiowa - East So Rockport- Wyo St Line Reg 6 Machine Patch 10 M N Cheyenne Wells Hollyoke-Neb State Line Geogetown - East Sheridan Lake-North	6 3 6 6 4 · 4 6 1 4 1 2 2	10304 10395 10679 10306 92303 91052 10857 11124 10790 11319 11438 11374 11358	PROJECT	ITEM ITEM ITEM ITEM ITEM ITEM ITEM ITEM	\$25.00 \$27.31 \$29.53 \$27.00 \$29.04 \$27.27 \$26.67 \$27.32 \$38.00 \$32.34 \$36.00 \$27.75 \$32.89	12.4 24.0 27.6 10.0 15.6 9.3 46.6 24.7 3.0 63.6 53.0 22.6 16.4	92.7 92.9 92.9 93.0 93.6 93.7 93.8 94.2 94.8 94.9 94.9 95.3	1.029 1.027 1.003 1.032 1.016 1.028 1.024 1.035 1.030 1.020 1.037 1.037	\$8,960 \$17,884 \$2,418 \$8,762 \$6,964 \$7,204 \$31,114 \$23,809 \$3,381 \$41,678 \$69,671 \$23,181 \$22,875	C4 B1 A1 C2 S1 W2 W2 W2 G1 W2 W2 H1 H1
6TH & Union SH 93 & Golden Gate C Estes Park East & West Kiowa - East So Rockport- Wyo St Line Reg 6 Machine Patch 10 M N Cheyenne Wells Hollyoke-Neb State Line Geogetown - East Sheridan Lake-North Lamar Area-MP	6 3 6 6 4 4 6 1 4 1 2	10304 10395 10679 10306 92303 91052 10857 11124 10790 11319 11438 11374 11358 10944	PROJECT	ITEM ITEM ITEM ITEM ITEM ITEM ITEM ITEM	\$25.00 \$27.31 \$29.53 \$27.00 \$29.04 \$27.27 \$26.67 \$27.32 \$38.00 \$32.34 \$36.00 \$27.75 \$32.89 \$30.51	12.4 24.0 27.6 10.0 15.6 9.3 46.6 24.7 3.0 63.6 53.0 22.6 16.4 51.3	92.7 92.9 92.9 93.0 93.6 93.7 93.8 94.2 94.8 94.9 94.9 95.3 95.4	1.029 1.027 1.003 1.032 1.016 1.028 1.024 1.035 1.030 1.020 1.037 1.037 1.042 1.038	\$8,960 \$17,884 \$2,418 \$8,762 \$6,964 \$7,204 \$31,114 \$23,809 \$3,381 \$41,678 \$69,671 \$23,181 \$22,875 \$58,350	C4 B1 A1 C2 S1 W2 W2 G1 W2 W2 H1 H1 R1
6TH & Union SH 93 & Golden Gate C Estes Park East & West Kiowa - East So Rockport- Wyo St Line Reg 6 Machine Patch 10 M N Cheyenne Wells Hollyoke-Neb State Line Geogetown - East Sheridan Lake-North Lamar Area-MP Mach Ptc-C Sps-Pueb Rifle - North	6 3 6 6 4 6 1 4 1 2 2 2 3	10304 10395 10679 10306 92303 91052 10857 11124 10790 11319 11438 11374 11358 10944 11073	PROJECT	ITEM ITEM ITEM ITEM ITEM ITEM ITEM ITEM	\$25.00 \$27.31 \$29.53 \$27.00 \$29.04 \$27.27 \$26.67 \$27.32 \$38.00 \$32.34 \$36.00 \$27.75 \$32.89 \$30.51 \$27.18	12.4 24.0 27.6 10.0 15.6 9.3 46.6 24.7 3.0 63.6 53.0 22.6 16.4 51.3 28.5	92.7 92.9 92.9 93.0 93.6 93.7 93.8 94.2 94.8 94.9 94.9 95.3 95.4 95.5 95.8	1.029 1.027 1.003 1.032 1.016 1.028 1.024 1.035 1.030 1.020 1.037 1.037 1.042 1.038 1.034	\$8,960 \$17,884 \$2,418 \$8,762 \$6,964 \$7,204 \$31,114 \$23,809 \$3,381 \$41,678 \$69,671 \$23,181 \$22,875 \$58,350 \$26,660	C4 B1 A1 C2 S1 W2 W2 G1 W2 W2 H1 H1 R1 E1
6TH & Union SH 93 & Golden Gate C Estes Park East & West Kiowa - East So Rockport- Wyo St Line Reg 6 Machine Patch 10 M N Cheyenne Wells Hollyoke-Neb State Line Geogetown - East Sheridan Lake-North Lamar Area-MP Mach Pto-C Sps-Pueb	6 3 6 6 4 6 1 4 1 2 2 2	10304 10395 10679 10306 92303 91052 10857 11124 10790 11319 11438 11374 11358 10944 11073 11359	PROJECT	ITEM ITEM ITEM ITEM ITEM ITEM ITEM ITEM	\$25.00 \$27.31 \$29.53 \$27.00 \$29.04 \$27.27 \$26.67 \$27.32 \$38.00 \$32.34 \$36.00 \$27.75 \$32.89 \$30.51 \$27.18 \$31.25	12.4 24.0 27.6 10.0 15.6 9.3 46.6 24.7 3.0 63.6 53.0 22.6 16.4 51.3	92.7 92.9 93.0 93.6 93.7 93.8 94.2 94.8 94.9 94.9 95.3 95.4 95.5 95.8 96.3	1.029 1.027 1.003 1.032 1.016 1.028 1.024 1.035 1.030 1.020 1.037 1.037 1.042 1.038	\$8,960 \$17,884 \$2,418 \$8,762 \$6,964 \$7,204 \$31,114 \$23,809 \$3,381 \$41,678 \$69,671 \$23,181 \$22,875 \$58,350	C4 B1 A1 C2 S1 W2 W2 G1 W2 W2 H1 H1 R1

TABLE 3B

HOT BITUMINOUS PAVEMENT QC/QA DETAILS & SUMMARY BY PROJECT
(PROCESS AVGS FOR ITEM) FOR 1996 CONSTRUCTION SEASON USING QPM 2 (95)

PROJECT	REG/	SUBAC	MIX	ELE-	BID	TONS	QUALITY	PAY	Incent/	Cont
LOCATION	UNIT	NUMBR	DESIGN /PRCSS	MENT	\$/TON	1000	TEART	E CONTROLL	Disinc\$	Code
		SORTE		ERAGED	BY CDO	TREG		IS CONTROL	ATO SHIVE	
C 470 - South	1	050505050505000000000000000000000000000	PROJECT		\$28.50	25.5	78.6	0.933	(\$48,993	81
Greenland - North	•	10768	PROJECT	ITEM	\$32.56	55:8	83.9	1.000	\$510	105
Kiowa - East	1	91052	PROJECT	ITEM	\$27 27	9.3	93.7	1 028	\$7,204	S 1
10 M N Cheyenno Wells	1	10790	PROJECT	ITEM	\$38.00	3:0	94.8	1.030	\$3,381	G!
Geogefown - East	1	11438	PROJECT	ITEM	\$35.00	53.0	94.9	1.037	\$59,571	W2
SH385, 20 MLS of 170 N	1	10769	PROJECT	ITEM	\$30.28	26.9	96.8	1 047	\$38,347	HH
					\$32.47	173.5	89.2	1.011	\$70,119	
SH 47, Troy Av E & W	2	11169	PROJECT	ITEM	\$29.00	37.9	837	5.962	(\$41,898)	K2
Royal Gorge - East	2	10652	PROJECT	HEM	\$24.69	35:8	91.9	1.027	\$23,898	(E)
Sheridan Lake-North	2	11374	PROJECT	ITEM	\$27.75	22.6	95.3	1:037	\$23,181	HI
Lamar Area-MP	2	11358	PROJECT	TEM	\$32.89	16:4	95:4	1 042	\$22,875	ĦH
Mach Pto-C Sps-Pueb	2	10944	PROJECT	IJEM	\$30.51	51.3	95:5	1.038	\$58,350	Æŧ
Mach Pat/Pueblo Area	2	11359	PROJECT	IEM	\$31.25	13.3	96,3	1.044	\$18,275	B2
					\$28.97	177.4	92.3	1.020	\$104,681	
S Montrose - Co Line	3	91416	PROJECT	ITEM	\$25.00	18:6	91.2	1:029	\$13,679	un .
West of Granby W	3	10395	PROJECT	ITEM	\$27.31	24:0	92.9	1 027	\$17,884	C4
Rifle - North	3	11073	PROJECT	ITEM	\$27.AB	28:5	95.8	1,034	\$26,660	E 1
					\$26.65	71.1	93.6	1.031	\$58,223	
Hallyolae Neb State Line	4	11319	PROJECT	ITEM	\$32.34	63:6	94:9	1.020	\$41,678	W2
Estes Park East & West	4	92303	PROJECT	ITEM	\$29.04	15:6	93.6	1.016	\$6,964	C2
SH 257, US 34-Poudre	4	10595	PROJECT	ITEM	\$27.60	9:4	88.5	1 021	\$5,416	C3
So Rackport-Wiyo St Line	.4	10857	PROJECT	ITEM	\$26.67	46.6	93.6	1,024	631,114	W2
tartin St (Langmant)-125	4	10858	PROJECT	ITEM	\$24.22	38:0	83:7	0.991	(\$6,992)	81
luclongham - Raymer	4	11318	PROJECT	ITEM	\$25.51	32.6	92.0	1 019	\$16,248	M3
					\$28.01	205.9	91.7	1.015	\$94,428	
onche Spgs-Coeldele	5	11499	PROJECT	ITEM	\$23.84	50.2	80:0	0 948	(\$56,297)	Á2
ermington Hill	5	10996	PROJECT	REM	\$24.77	37.6	88.6	1.017	\$15,538	MI
					\$24.24	87.9	83.8	0.977	(\$40,760)	
Vads Blvd, 58th to 64th	6	90448	ROLLET	ITEM	\$24.00	14.0	80.0	0.927	(\$24,606)	W2
acker Road	6	92319	ROJECT	REM	\$32.00	6.2	86.4	1.013	\$2,526	KI
leg 5 Machine Patch	- 6	11124	PROJECT	ITEM	\$29.00	19:0	9117	1:021	\$11,775	W/2
ena Guich	6	10304 (ROJECT	ITEM	\$25.00	12 4	92.7	1:029	\$8,960	A1
TH'& Union	- 6	10679	ROJECT	ITEM	\$29.53	27.6	92:9	4,003	\$2,418	B3
H 93 & Golden Gate C	- 6	10306 F	ROJECT	ITEM	\$27:00	10.0	93 0	1 632	\$8,762	EA
eg 6 Mechine Palch	6	11124 F	ROJECT	ITEM	\$27.32	247	94.2	1 035	\$23,809	W2
					\$24.75	113.9	91.0	1.010	(\$47,874)	
BP ITEM TOTALS & AVERA	OFE ALL	OPANINGE			\$28,59	829.6	90.829	1.0122	\$320,336	

TABLE 3C
HOT BITUMINOUS PAVEMENT QC/QA DETAILS & SUMMARY BY PROJECT
(PROCESS AVGS FOR ITEM) FOR 1996 CONSTRUCTION SEASON USING QPM 2 (95)

REG/ UNIT	SUBAC NUMBR	MIX Design	RLE- MENT	BID \$/TON	TONS 1000	CUALITY LEVEL	PAY FACT	Incent/ Disinc\$	Contr Code
<u>.</u>		/PRCSS				Gradation	la CONTRO	LING Sieve	. 8
	S	ORTED B	Y CONT	RACTOR	& QL	-			
6	10304	PROJECT	ITEM	\$25.00	12.4	92 7	1 029	\$8,960	At
. 8	10306	PROJECT	ITEM	\$27.00	10.0	93.0	1.032	\$8,762	A1
5	11499	PROJECT	ITEM	\$23.84	50.2	80.0	0.948	(\$56,297)	A2
1	11369	PROJECT	ITEM	\$28.50	25.5	78.6	0.933	(\$48,993)	B1
4	10858	PROJECT	ITEM	\$24.22	38.0	83.7	0.991	(\$6,992)	B1
6	10679	PROJECT	ITEM	\$29.53	27.6	92.9	1.003	\$2,418	B1
2	11359	PROJECT	ITEM	\$31.25	13.3	96.3	1.044	\$18,275	B2
4	10595	PROJECT	FIEM	\$27,60	94	88:5	1 021	\$5,416	C2
4	92303	PROJECT	ITEM	\$29.04	15.6	93.6	1.016	\$6,964	C2
3	10395	PROJECT	ITEM	\$27.31	24.0	92.9	1.027	\$17,884	C4
3	11073	PROJECT	ITEM	\$27.18	28.5	95.8	1.034	\$26,660	E1
1	10790	PROJECT	ITEM	\$38.00	3.0	94.8	1.030	\$3,381	G1
2	10652	PROJECT	TEM	\$24.89	35.8	91:9	1 027	\$23,898	#19
2	11374	PROJECT	TEM	\$27.75	22.6	95.3	1.037	\$23,181	#11
2	11358	PROJECT	(TEM	\$32.89	16.4	95:4	1.042	\$22,875	Hi
1	10769	PROJECT	ITEM	\$30.28	26.9	96:8	1:047	\$38,347	#11
1	10768	PROJECT	ITEM	\$32.56	55.8	83.9	1.000	\$510	K1
6	92319	PROJECT	ITEM	\$32.00	6.2	86.4	1.013	\$2,526	K1
2	11189	PROJECT	ITEM	\$29.00	37.9	63.7	0.962	(\$41,898)	K2
5	10996	PROJECT	ITEM	\$24.77	37.6	88.8	1.017	\$15,538	Ni
2	10944	PROJECT	ITEM	\$30.51	51.3	95.5	1.038	\$58,350	RI
1	91052	PROJECT	ITEM	\$27.27	9.3	93.7	1:028	\$7,204	51
3	91416	PROJECT	(TEM	\$25.00	18.6	912	1.029	\$13,679	UI
6	90448	PROJECT	ITEM	\$24.00	14.0	80.0	0.927	(\$24,606)	W2
6	11124	PROJECT	ITEM	\$29.00	19.0	91.7	1.021	\$11,775	W2
4	11318	PROJECT	ITEM	\$25.51	32.6	92.0	1.019	\$16,248	W2
4	10857	PROJECT	ITEM	\$26.67	46.6	93.8	1.024	\$31,114	W2
6	11124	PROJECT	ITEM	\$27.32	24.7	94.2	1.035	\$23,809	W2
4	11319	PROJECT	ITEM	\$32.34	63.6	94.9	1.020	\$41,678	W2
1	11438	PROJECT	ITEM	\$36.00	53.0.	94.9	1.037	\$69.671	W2
	UNIT 6 8 5 1 4 6 2 4 4 3 3 1 2 2 2 1 6 6 4 4 6 4 6 4	UNIT NUMBR Si 6 10304 8 10305 5 11499 1 11369 4 10858 6 10679 2 11359 4 10596 4 92303 3 10395 3 11073 1 10790 2 10652 2 11374 2 11358 1 10768 6 92319 2 11469 5 10996 2 10944 1 91052 3 91416 6 90448 6 11124 4 11318 4 10857 6 11124 4 11319	UNIT NUMBR	UNIT NUMBR	UNIT NUMBR	UNIT NUMBR	UNIT NUMBR DESIGN MENT \$/TON 1000 LEVEL	NUMBER DESIGN MENT \$/TON 1000 LEVEL FACT	NUMBER DESTGN MENT \$/TON 1000 LEVEL FACT Disinc\$

TABLE 3D
CONTRACTORS AVERAGES SORTED BY QL

	UNIKAC	<u>IORS AV</u>	EKAGES	SUR	IED BY (46
% '96	BID	TONS	QUALITY	PAY	Incent/	Contr
TONS	\$/TON	1000	LEVEL	FACT	Disinc\$	Code
			Gradation	& CONTROL	LING Sieve	
6.	1 \$23.84	50.2	80.0	0.948	(\$56,297)	A2
4.6	5 \$29.00	37.9	83.7	0.962	(\$41,898)	K2
7.5	5 \$32.51	61.9	84.1	1.002	\$3,037	K1
11.0	\$27.03	91.2	85.1	0.978	(\$53,568)	B1
4.5	\$24.77	37.6	88.8	1.017	\$15,538	N1
2.2	\$25.00	18.6	91.2	1.029	\$13,679	U1
3.0	\$28.50	25.0	91.6	1.018	\$12,380	C2
2.7	7 \$25.89	22.4	92.9	1.030	\$17,722	A1
2.9	\$27.31	24.0	92.9	1.027	\$17,884	C4
30.6	\$29.99	253.6	93.2	1.021	\$169,689	W2
1.1	\$27.27	9.3	93.7	1.028	\$7,204	S1
12.3	\$28.24	101.8	94.5	1.037	\$108,301	H1
0.4	\$38.00	3.0	94.8	1.030	\$3,381	G1
6.2	\$30.51	51.3	95.5	1.038	\$58,350	R1
3.4	\$27.18	28.5	95.8	1.034	\$26,660	E1
1.6	\$31.25	13.3	96.3	1.044	\$18,275	B2
100.1	\$28,59	829.6	90.829	1.0122	\$320,336	

TABLE 4
HBP EVALUATION SUMMARIZED BY YEAR, 1991 HISTORICAL & 1992 - 1996 QC/QA

IDENTIFICATION		TONS	TESTS	STD	ME	AN -	QPM 2	QPM 1	QPM 2
YEAR	ELEMENT	1000s	"n"	DEV	TARGET		QUAL LEV	PAY FACT	PAY FACT
Composites are eleme	nt values weighte	d by "W" fact	Element det	-	г <i>ат</i> ехары	r waighted :	t toms. Grade	ion AD 6 Mass	s - Target s
1991	Asphalt %	2000	4027	0.18	0.0	7 Abs	67.0	1,005	1,000
Historical	Density %	900	1865	1:05	1.0	Q Abs	84.0	1.002	0:960
Elements	Gradation	2000	2317	2.58	1.8	2 Aba	857	1.005	0.989
Composite	tem	2000					852	1:004	0.978
1992	Asphalt %	282	214	0.14	0.0	6 Abs	96.3	1.039	1.042
QPM 1	Density %	282	570	1.00	0.7	1 Abs	88.9	1.018	0.990
Elements	Gradation	282	180	2.11	1.2	1 Abs	90.0	1.020	1.014
Composite	ltem	282					91.3	1.025	1.010
1993	Asphalt %	482	837	0.15	0.0	Abe	93.2	1.032	1:028
QPM1	Density %	482	969	0.96	0.48 Abs		92.4	1:028	1.018
Elements	Gradation	482	309	2:31	1.53	Abs	88.8	1.016	1.010
Composite	Rem	482			ABS	ALGEB	819	1.027	1.019
1994	Asphalt %	1496	1277	0.15	0.06	0.01	90.6	1.034	1.022
QPM1	Density %	1400	2812	0.96	0.57	-0.47	90.3	1.023	1.007
Elements	Gradation	1496	1053	2.05	1.12	-0.93	88.3	1.021	1.014
Composite	ltem	1496					90.0	1.026	1.013
1995	Asphalt %	776	764	0:17	0.09	0.03	86,1	1.017	0,993
QPM)	Density %	757	1378	1214	0.97	-0.85	81:1	0.999	0:950
Elements	Gradation	776	547	2.10	1.18	-0.18	88.9	1.017	1.015
Composite	flem	776					84.2	1:008	0.976
1991 - 1995	Asphalt %	3036	3092	0.15	0.07	0.02	90.4	1.030	1.017
Summary of	Density %	2921	5729	1.01	0.67	-0.60	88.1	1.017	0.992
QP& 1 Elements	Gradation	3036	2089	2.11	1.21	-0.67	88.7	1.019	1.014
SUMMARY QPM1 C		3036				0.00	88.9	1.021	1.004
1995	Asphalt %	328	342	0.18	0.05	0.02	88.7	1.014	1.000
QPM2	Density %	314	625	0.99	0.46	-0.38	91.7	1.023	1.017
Elements	Gradation	328	191	2.76	1.18	0.55	85.1	1 003	0.990
Composite	itorn	328	****				89.5	1.016	1.007
1996	Asphalt %	830	847	0.16	0.07	0.02	89.8	NA NA	1.008
QPM 2	Density %	830	1465	0.91	0.60	-0.56	91.9	NA	1.015
Elements	Gradation	830	438	1.98	1.53	0.15	89.6	NA	1.012
Composite	Item	830	100	1.00	1,00	0.10	90.8	NA NA	1.012
			6600	0.47	0.67	000			
1995 - 1996	Asphalt %	1158	1189	0.17	0.07	0.02	89.5	NA	1.006
Summary of	Density %	1144	2090	0.93	0.56	-0.51	91.9	NA	1.016
2PM 2 Elements	Gradation	1158	629	2.20	1.44	0.26	88.3	NA .	1.006
IUMM GPM2 COMPOSITES		1158					90.4	NA	1.011
UMM QC/QA PROJECTS		4194				1	89.3	NA	1.008

TABLE 5

QC/QA HBP EVALUATION, SUMMARY BY ELEMENT AND YEARLY COMPOSITES

1992 - 1996 Average Values (Weighted by Tons) Related to 1991 Historical

1992 - 1996 Average Values (weighted by Tons)		11				
Year &	Element or	Standard	Deviation	Avg Abs Meen-Tol Lim		QPM 2 Quality Level		QPM 2 Pay Factor	
Identity	Composite	Value	Inv % '91	Value	% of '91	Value	% of '91	Value	% of '91
'91 Historical	Asphalt %	0.18	100.0	0.23	100.0	87.0	100.0	1.000	100.0
'92 QPM1	Asphalt %	0.14	128.6	0.24	104.3	96.3	110.7	1.042	104.2
'93 QPM1	Asphalt %	0.15	120.0	0.26	113.0	93.2	107.1	1.028	102.8
'94 QPM1	Asphalt %	0.15	120.0	0.24	106.1	90.6	104.1	1.022	102.2
'95 QPM1	Asphalt %	0.17	104.0	0.21	90.0	86.1	99.0	0.993	99.3
'95 QPM2	Asphalt %	0.18	100.6	0.25	107.0	88.6	101.8	1.000	100.0
'96 QPM2	Asphalt %	0.16	109.8	0.23	100.0	89.8	103.2	1.008	100.8
All QC/QA	Asphalt %	0.16	113.5	0.24	102.7	90.1	103.6	1.014	101.4
					· · · ·—				
91 Hist.	Density %	1.05	100.0	1.00	100.0	84.0	100.0	0.960	100.0
92 QFM1	Density %	1.00	105.0	1.29	129.0	88.9	105.8	0.990	103.1
93 QPM1	Density %	0.96	109.4	1.52	152.0	92.4	110.0	1.018	106.0
94 QPM1	Density %	0.96	109.4	1.43	143.0	90.3	107.5	1.007	104.9
'95 QPM1	Density %	1.14	91.9	1.03	102.8	81.1	96.5	0.949	98.9
95 QPM2	Density %	0.99	106.1	1.54	153.6	91.7	109.2	1.017	105.9
96 QPM2	Density %	0.91	115.3	1.40	140.1	91.9	109.5	1.015	105.7
All QC/QA	Density %	0.99	106.2	1.36	136.0	89.2	106.2	0.999	104.1
	/e		Based on Gradation (QPM Controlling Sieve)						
91 Hist. (Gradation	2.59	100.0	3.18	100.0	85.7	100.0	0.989	100.0
92 QPM1 (Gradation	2.11	122.7	3.79	119.2	90.0	105.0	1.014	102.5
93 QPM1	Gradation	2.31	112.1	3.47	109.1	88.8	103.6	1.010	102.1
94 QPM1 (Gradation	2.05	126.3	3.88	122.0	88.3	103.0	1.014	102.5
95 QPM1	Gradation	2.10	123.3	3.84	120.6	88.9	103.7	1.016	102.8
95 QPM2	Gradation	2.76	93.8	3.81	119.7	85.1	99.3	0.990	100.1
95 QPM2	Gradation	1.98	130.5	3.47	109.0	89.6	104.5	1.012	102.3
AII QC/QA	Gradation	2.14	121.3	3.73	117.3	88.6	103.4	1.012	102.3
			Values Below	Are Compos	ites of Above \	/alues, i.e, Ele	ments Weigl	nted by "W" I	actors
91 Hist. C	Composite	- 1	100.0	- T	100.0	85.2	100.0	0.978	100.0
92 QPM1 C	Composite	-	115.6	-	119.6	91.3	107.1	1.010	103.3
93 QPM1 C	Composite	-	113.1	-	131.7	91.9	107.9	1.019	104.3
94 QPM1 C	Composite		116.0	-	127.7	90.0	105.6	1.013	103.6
95 QPM1 C	Composite	-	101.8	-	102.5	84.2	98.7	0.976	99.8
95 QPM2 C	Composite	_	102.0		132.8	89.5	105.0	1.007	103.0
<i>i</i> [440.7		121.9	90.8	106.6	1.012	103.6
96 QPM2 C	Composite	_	116.7	- 1	121.9	30.0	100.0	1.012	103.0

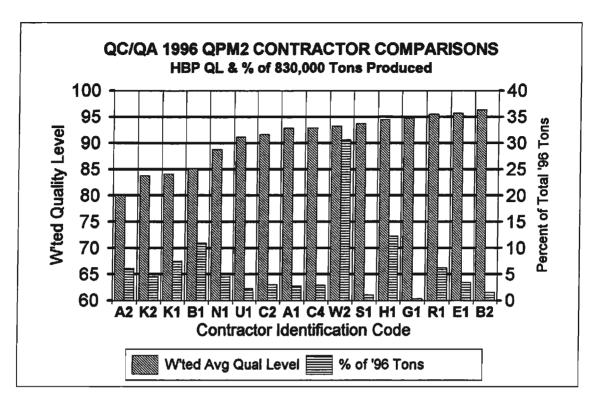


Figure 1

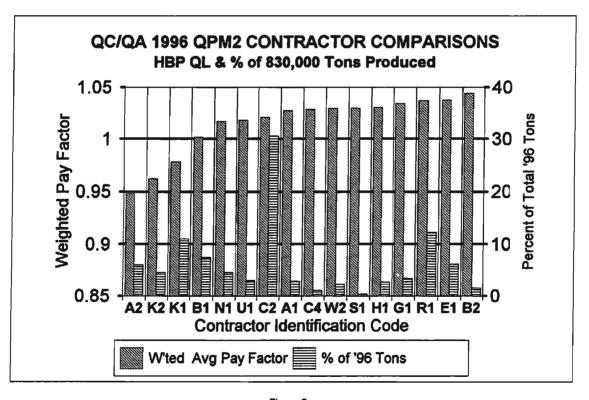


Figure 2

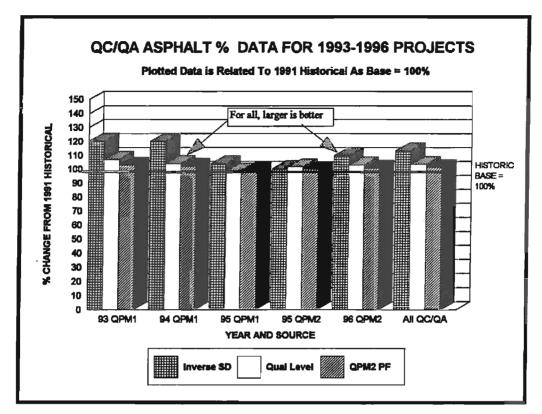


Figure 4

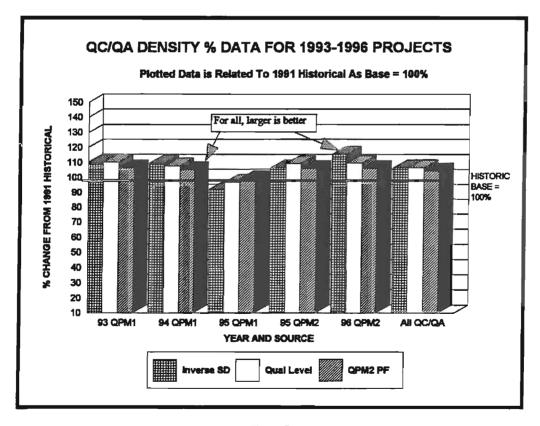


Figure 5

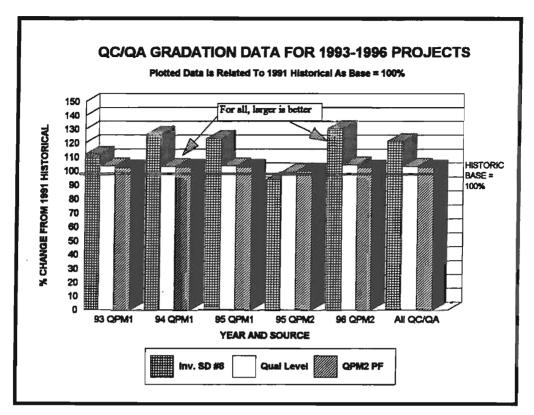


Figure 6

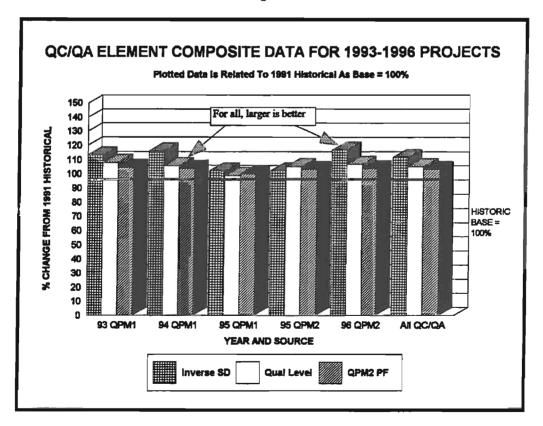


Figure 6

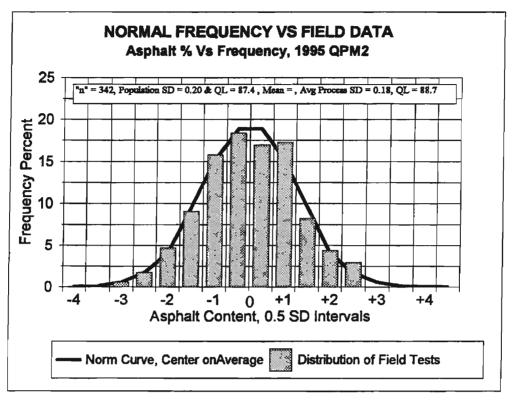


Figure 7

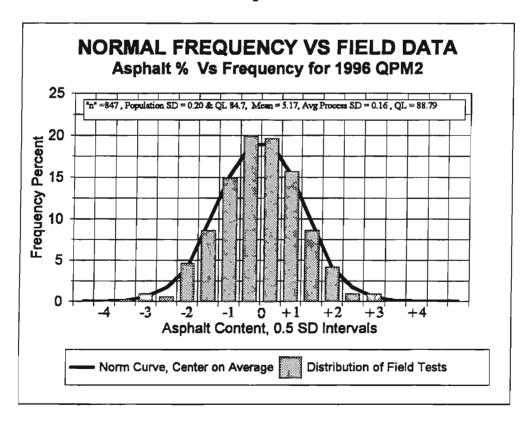


Figure 8

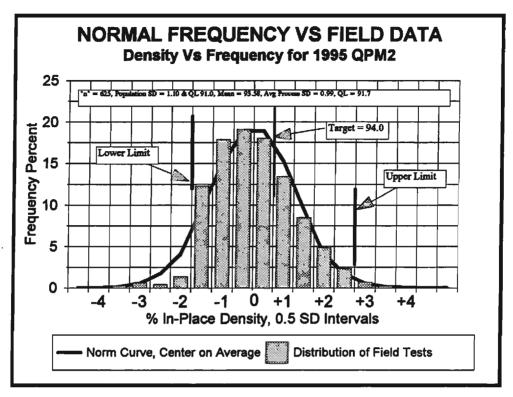


Figure 9

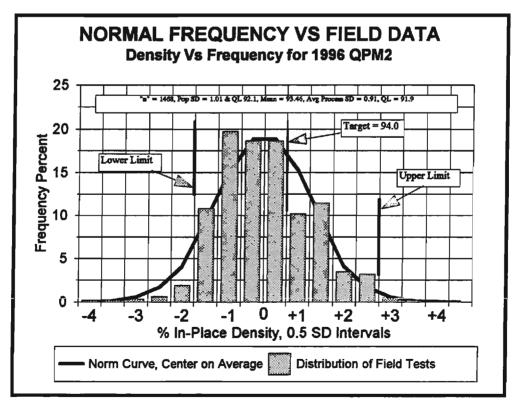


Figure 10

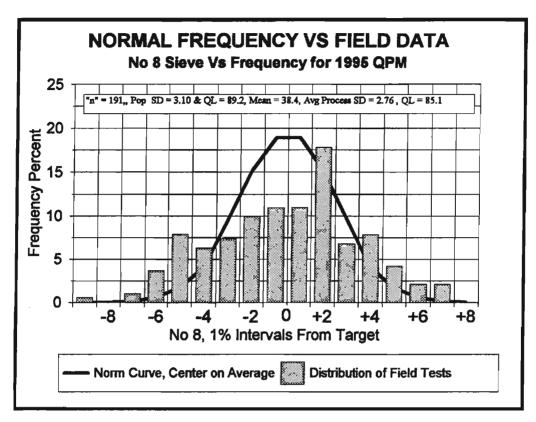


Figure 11

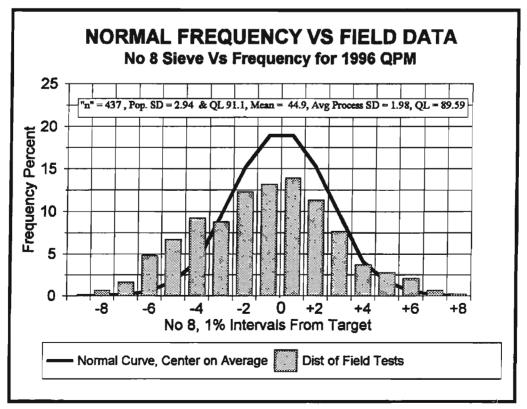


Figure 12